

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Mixture

Product Name: EP-250-1 Igniter

1.2. Intended Use of the Product

Control of pyrotechnic reactions

1.3. Name, Address, and Telephone of the Responsible Party

EaglePicher Technologies, LLC

1215 W. C St.

Joplin, MO 64801, USA

417-623-8000

email: inquiry@eaglepicher.com

Website: www.eaglepicher.com

1.4. Emergency Telephone Number

Emergency Number : For Chemical Emergency Call CHEMTREC day or night

Within USA and Canada: 1.800.424.9300

Outside USA and Canada: 1.703.527.3887 (collect calls accepted)

SECTION 2: HAZARDS IDENTIFICATION

This article contains one or more explosive substances or mixtures in a hermetically sealed case. Under normal handling conditions the user is unable to be exposed to the internal chemical contents of the article. The risk of chemical exposure exists only in cases of mechanical failure of the article case allowing contents to be exposed. Thus, these articles should never be punctured, incinerated, dropped, or crushed.

2.1. Classification of the Substance or Mixture

GHS-US/CA Classification

The explosive classification below only applies to US 29 CFR 1910.1200 (HCS/HazCom 2012). The explosive classification is excluded from Canada Hazardous Products Regulations (HPR, SOR/2015-17), it is regulated under the Canada Explosives Act (R.S.C., 1985, c. E-17)

Explosive 1.4

Pyrophoric solids Category 1 H250

Substances and mixtures which in contact with water emit flammable gases Category 1 H260

Acute toxicity (oral) Category 4 H302

Carcinogenicity Category 1A H350

Hazardous to the aquatic environment – Acute Hazard Category 1 H400

Hazardous to the aquatic environment – Chronic Hazard Category 1 H410

2.2. Label Elements

GHS-US/CA Labeling

Any labeling elements (pictograms, signal word, hazard, and precautionary statements) related to explosive classifications apply to the OSHA Hazard Communication Standard (HCS, 29 CFR 1910.1200) only and are excluded from Canada's Hazardous Products Regulations (HPR, SOR/2015-17)

Hazard Pictograms (GHS-US/CA)



Signal Word (GHS-US/CA)

: Danger

Hazard Statements (GHS-US/CA)

: H204 - Fire or projection hazard.

H250 - Catches fire spontaneously if exposed to air.

H260 - In contact with water releases flammable gases which may ignite spontaneously.

H302 - Harmful if swallowed.

H350 - May cause cancer.

H410 - Very toxic to aquatic life with long lasting effects.

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- Precautionary Statements (GHS-US/CA) :**
- P201 - Obtain special instructions before use.
 - P202 - Do not handle until all safety precautions have been read and understood.
 - P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 - P222 - Do not allow contact with air.
 - P223 - Do not allow contact with water.
 - P231+P232 - Handle under inert gas. Protect from moisture.
 - P233 - Keep container tightly closed.
 - P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
 - P270 - Do not eat, drink or smoke when using this product.
 - P273 - Avoid release to the environment.
 - P280 - Wear protective gloves, protective clothing, and eye protection.
 - P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
 - P302+P335+P334 - IF ON SKIN: Brush off loose particles from skin. Immerse in cool water or wrap in wet bandages.
 - P308+P313 - If exposed or concerned: Get medical advice/attention.
 - P330 - Rinse mouth.
 - P370+P378 - In case of fire: Use appropriate media (see section 5) to extinguish.
 - P391 - Collect spillage.
 - P402+P404 - Store in a dry place. Store in a closed container.
 - P405 - Store locked up.
 - P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.
 - P240 - Ground/bond container and receiving equipment.
 - P250 - Do not subject to grinding/shock/friction.
 - P370+P380 - In case of fire: Evacuate area.
 - P372 - Explosion risk in case of fire.
 - P373 - DO NOT fight fire when fire reaches explosives.
 - P374 - Fight fire with normal precautions from a reasonable distance.
 - P401 - Store in accordance with local, regional, national, and international regulations.
- Supplemental Information :**
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Proper grounding procedures to avoid static electricity should be followed. Prevent dust accumulation (to minimize explosion hazard). Avoid generating dust.

2.3. Other Hazards

Exposure to internal contents may aggravate pre-existing eye, skin, or respiratory conditions.

2.4. Unknown Acute Toxicity (GHS-US/CA)

No additional information available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Not applicable

3.2. Mixture

Name	Synonyms	Product Identifier	% *	GHS Ingredient Classification
Zirconium	Zirconium suspended in a flammable liquid / Zirconium powder (pyrophoric) / Zirconium metal / Zirconium, elemental / ZIRCONIUM POWDER / Zirconium powder, dry / Zirconium metallic	(CAS-No.) 7440-67-7	60-80	Pyr. Sol. 1, H250 Water-react. 1, H260 Comb. Dust
Iron oxide (Fe2O3)	C.I. 77491 / C.I. Pigment Red 101 / Diiron trioxide / Ferric oxide / Iron sesquioxide / Iron(III) oxide / Red Iron Oxide / Rouge / CI 77491 / Iron trioxide / Sienna / Pigment Red	(CAS-No.) 1309-37-1	60-80	Comb. Dust

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	101 / Red iron oxide / Red iron oxide pigment / Iron Oxide Red / Diiron(III) trioxide / Iron oxide / Ferric oxide red / Iron oxide, red			
Boron	boron	(CAS-No.) 7440-42-8	15-38	Combustible. Dust
calcium chromate	Calcium Chrome Yellow / Chromic acid (H ₂ CrO ₄), calcium salt / Chromic acid (H ₂ CrO ₄), calcium salt (1:1) / Chromic acid, calcium salt (1:1)	(CAS-No.) 13765-19-0	15-38	Acute Tox. 4 (Oral), H302 Carc. 1A, H350 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

*The actual concentration of ingredient(s) is withheld as a trade secret in accordance with 29 CFR 1910.1200. Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%). Full text of H-statements: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: Using proper respiratory protection, move the exposed person to fresh air at once. Encourage exposed person to cough, spit out, and blow nose to remove dust. Immediately call a poison center, physician, or emergency medical service.

Skin Contact: Immediately remove contaminated clothing. Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages. If exposed or concerned: Get medical advice/attention.

Eye Contact: Rinse cautiously with water for at least 5 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.

Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

General: May cause cancer. Harmful if swallowed.

Inhalation: Dust may be harmful or cause irritation.

Skin Contact: Prolonged exposure may cause skin irritation.

Eye Contact: May cause slight irritation to eyes.

Ingestion: This material is harmful orally and can cause adverse health effects or death in significant amounts.

Chronic Symptoms: May cause cancer.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: DO NOT FIGHT FIRES INVOLVING EXPLOSIVES. Water may be applied through fixed extinguishing system (sprinklers) as long as people need not be present for the system to operate.

Unsuitable Extinguishing Media: DO NOT fight fires involving explosives. Do not use extinguishing media containing water.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Explosive, could cause fire and secondary explosions. Combustible Dust.

Explosion Hazard: Explosives, Division 1.4 - Explosives (with no significant blast hazard). Dust explosion hazard in air.

Reactivity: Fire or projection hazard.

5.3. Advice for Firefighters

Precautionary Measures Fire: This product is an explosive with a fire or projection hazard. DO NOT FIGHT FIRES INVOLVING EXPLOSIVE MATERIALS. Exercise caution when fighting any chemical fire.

Firefighting Instructions: DO NOT ATTEMPT TO FIGHT FIRE. Immediately evacuate all personnel from the area to a safe distance. Guard against re-entry. Thermal decomposition can lead to release of irritating gases and vapors. In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Boron compounds. Calcium oxide. Oxides of iron. Chromium oxides. Zirconium oxides. Carbon oxides (CO, CO₂).

Other Information: Do not allow run-off from fire fighting to enter drains or water courses. Risk of dust explosion.

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5.4. Reference to Other Sections

Refer to Section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Evacuate danger area. Remove ignition sources. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Do not handle until all safety precautions have been read and understood. Do not get in eyes, on skin, or on clothing. Do not breathe dust. Avoid generating dust.

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel. Evacuate danger area.

6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Eliminate ignition sources. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

6.2. Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment. Collect spillage.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Remove ignition sources. Contain solid spills with appropriate barriers and prevent migration and entry into sewers or streams. Absorb and contain with inert material. Place contents in suitable container for disposal. Use only non-sparking tools. Avoid generation of dust during clean-up of spills.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Use only non-sparking tools. Be careful to avoid shock, friction, and contact with grit. Collect product for recovery or disposal. For release to land, contain discharge by constructing barriers or applying inert absorbent; for release to water, utilize damming and/or water diversion to minimize the spread of contamination. Collect contaminated soil and water, and absorbent for proper disposal. Notify applicable government authority if release is reportable or could adversely affect the environment. Use explosion proof vacuum during cleanup, with appropriate filter. Do not mix with other materials. If sweeping is required use a dust suppressant. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

As devices are unpackaged from their primary packaging they may present greater sensitivity to projection or fire hazards. Retain the primary packaging until use and limit the amount of unpacked devices. When a device is installed or deployed and is later removed from use without initiation, it should be replaced in its primary packaging or identical primary packaging.

7.1. Precautions for Safe Handling

Additional Hazards When Processed: Keep away from any possible contact with water, because of violent reaction and possible flash fire. Accumulation and dispersion of dust with an ignition source can cause a combustible dust explosion. Keep dust levels to a minimum and follow applicable regulations.

Precautions for Safe Handling: Leave shunt on device until installation. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Keep away from sources of ignition - No smoking. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust. Protect from moisture. Handle under inert gas. Keep away from heat, sparks, open flames, hot surfaces. - No smoking. Do not allow contact with air. Keep away from heat, sparks, open flames, and hot surfaces and sources of electrostatic discharge. No smoking. Handle empty containers with care because they may still present a hazard. Do not get in eyes, on skin, or on clothing. Avoid creating or spreading dust.

Hygiene Measures: This product is an explosive and should only be used under the supervision of trained and licensed personnel. Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations. Proper grounding procedures to avoid static electricity should be followed.

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Storage Conditions: Do NOT store explosives in a detonator magazine or detonators in an explosive magazine. Keep away from heat, spark and flames. Keep containers closed. Explosives should be kept well away from initiating explosives; protected from physical damage; separated from oxidizing materials, combustibles, and sources of heat. Isolate from incompatibles. Store locked up/in a secure area. Store in a cool, dry place. Keep away from moisture, extremely high or low temperatures, ignition sources, and incompatible materials. Keep container tightly closed.

Incompatible Materials: Strong acids, strong bases, strong oxidizers. Water, humidity. Azides. Magnesium. Aluminum. Hydrazine. Hydrogen peroxide. Halogens.

Special Rules on Packaging: Keep only in the original container.

7.3. Specific End Use(s)

Control of pyrotechnic reactions.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), or Canadian provincial governments.

calcium chromate (13765-19-0)		
Alberta	OEL TWA	0.001 mg/m ³
British Columbia	OEL TWA	0.001 mg/m ³ (total)
New Brunswick	OEL TWA	0.001 mg/m ³
Nunavut	OEL STEL	0.003 mg/m ³
Nunavut	OEL TWA	0.001 mg/m ³
Northwest Territories	OEL STEL	0.003 mg/m ³
Northwest Territories	OEL TWA	0.001 mg/m ³
Ontario	OEL TWA	0.001 mg/m ³
Québec	VEMP (OEL TWAEV)	0.001 mg/m ³
Saskatchewan	OEL STEL	0.003 mg/m ³
Saskatchewan	OEL TWA	0.001 mg/m ³
Zirconium (7440-67-7)		
USA ACGIH	ACGIH OEL TWA	5 mg/m ³
USA ACGIH	ACGIH OEL STEL	10 mg/m ³
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
USA NIOSH	NIOSH REL (TWA)	5 mg/m ³
USA NIOSH	NIOSH REL (STEL)	10 mg/m ³
USA IDLH	IDLH	50 mg/m ³
Alberta	OEL STEL	10 mg/m ³
Alberta	OEL TWA	5 mg/m ³
British Columbia	OEL STEL	10 mg/m ³
British Columbia	OEL TWA	5 mg/m ³
Manitoba	OEL STEL	10 mg/m ³
Manitoba	OEL TWA	5 mg/m ³
New Brunswick	OEL STEL	10 mg/m ³
New Brunswick	OEL TWA	5 mg/m ³
Newfoundland & Labrador	OEL STEL	10 mg/m ³
Newfoundland & Labrador	OEL TWA	5 mg/m ³
Nova Scotia	OEL STEL	10 mg/m ³
Nova Scotia	OEL TWA	5 mg/m ³
Nunavut	OEL STEL	10 mg/m ³
Nunavut	OEL TWA	5 mg/m ³
Northwest Territories	OEL STEL	10 mg/m ³
Northwest Territories	OEL TWA	5 mg/m ³

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Ontario	OEL STEL	10 mg/m ³
Ontario	OEL TWA	5 mg/m ³
Prince Edward Island	OEL STEL	10 mg/m ³
Prince Edward Island	OEL TWA	5 mg/m ³
Québec	VECD (OEL STEV)	10 mg/m ³
Québec	VEMP (OEL TWAEV)	5 mg/m ³
Saskatchewan	OEL STEL	10 mg/m ³
Saskatchewan	OEL TWA	5 mg/m ³
Iron oxide (Fe2O3) (1309-37-1)		
USA ACGIH	ACGIH OEL TWA	5 mg/m ³ (respirable particulate matter)
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
USA OSHA	OSHA PEL (TWA) [1]	10 mg/m ³ (fume) 15 mg/m ³ (total dust (Rouge)) 5 mg/m ³ (respirable fraction (Rouge))
USA NIOSH	NIOSH REL (TWA)	5 mg/m ³ (dust and fume)
USA IDLH	IDLH	2500 mg/m ³ (dust and fume)
Alberta	OEL TWA	5 mg/m ³ (respirable)
British Columbia	OEL STEL	10 mg/m ³ (fume)
British Columbia	OEL TWA	10 mg/m ³ (regulated under Rouge-total particulate (Rouge)) 3 mg/m ³ (regulated under Rouge: particulate matter containing no Asbestos and <1% Crystalline silica-respirable particulate (Rouge)) 5 mg/m ³ (dust and fume)
Manitoba	OEL TWA	5 mg/m ³ (respirable particulate matter)
New Brunswick	OEL TWA	5 mg/m ³ (respirable fraction)
Newfoundland & Labrador	OEL TWA	5 mg/m ³ (respirable particulate matter)
Nova Scotia	OEL TWA	5 mg/m ³ (respirable particulate matter)
Nunavut	OEL STEL	10 mg/m ³ (dust and fume) 20 mg/m ³ (regulated under Rouge)
Nunavut	OEL TWA	5 mg/m ³ (dust and fume) 10 mg/m ³ (regulated under Rouge)
Northwest Territories	OEL STEL	10 mg/m ³ (dust and fume) 20 mg/m ³ (regulated under Rouge)
Northwest Territories	OEL TWA	5 mg/m ³ (dust and fume) 10 mg/m ³ (regulated under Rouge)
Ontario	OEL TWA	5 mg/m ³ (respirable particulate matter)
Prince Edward Island	OEL TWA	5 mg/m ³ (respirable particulate matter)
Québec	VEMP (OEL TWAEV)	5 mg/m ³ (dust and fume)
Saskatchewan	OEL STEL	10 mg/m ³ (dust and fume) 20 mg/m ³ (regulated under Rouge)
Saskatchewan	OEL TWA	5 mg/m ³ (dust and fume) 10 mg/m ³ (regulated under Rouge)
Yukon	OEL STEL	10 mg/m ³ (fume) 20 mg/m ³ (regulated under Rouge)
Yukon	OEL TWA	5 mg/m ³ (fume) 30 mppcf (regulated under Rouge) 10 mg/m ³ (regulated under Rouge)

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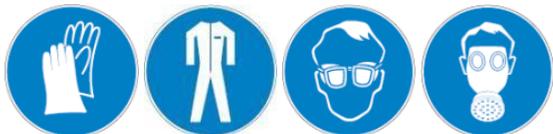
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8.2. Exposure Controls

Appropriate Engineering Controls: Suitable eye/body wash equipment should be available in the vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Proper grounding procedures to avoid static electricity should be followed. Product to be handled in a closed system and under strictly controlled conditions.

Personal Protective Equipment: Gloves. Protective clothing. Protective glasses or goggles. Insufficient ventilation: wear respiratory protection.



Materials for Protective Clothing: Wear suitable protective clothing.

Hand Protection: Wear protection against mechanical hazards. For exposure to internal components wear appropriate chemical gloves.

Eye and Face Protection: Safety glasses or chemical goggles.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	: Solid
Appearance	: No data available
Odor	: No data available
Odor Threshold	: No data available
pH	: No data available
Evaporation Rate	: No data available
Melting Point	: No data available
Freezing Point	: No data available
Boiling Point	: No data available
Flash Point	: No data available
Auto-ignition Temperature	: No data available
Decomposition Temperature	: No data available
Flammability (solid, gas)	: No data available
Lower Flammable Limit	: No data available
Upper Flammable Limit	: No data available
Vapor Pressure	: No data available
Relative Vapor Density at 20°C	: No data available
Relative Density	: No data available
Specific Gravity	: No data available
Solubility	: No data available
Partition Coefficient: N-Octanol/Water	: No data available
Viscosity	: No data available
Explosive Properties	: Explosives, Division 1.4 - Explosives (with no significant blast hazard)

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:

Fire or projection hazard. Internal contents react violently with water liberating highly flammable gases.

10.2. Chemical Stability:

Risk of explosion if heated under confinement.

10.3. Possibility of Hazardous Reactions:

Internal contents in contact with water releases flammable gases which may ignite spontaneously.

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According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

10.4. Conditions to Avoid:

Keep away from moisture, water, ignition sources, direct sunlight, extremely high or low temperatures, incompatible materials. Dust accumulation (to minimize explosion hazard). friction. Shock. ESD.

10.5. Incompatible Materials:

Strong acids, strong bases, strong oxidizers. Water, humidity. Azides. Magnesium. Aluminum. Hydrazine. Hydrogen peroxide. Halogens.

10.6. Hazardous Decomposition Products:

Thermal decomposition may produce: Boron compounds. calcium oxide. Oxides of iron. Chromium oxides. Zirconium oxides. Carbon oxides (CO, CO₂).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects - Product

Acute Toxicity (Oral): Harmful if swallowed.

Acute Toxicity (Dermal): Not classified

Acute Toxicity (Inhalation): Not classified

LD50 and LC50 Data:

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ATE US/CA (oral)	1,183.92 mg/kg body weight

Skin Corrosion/Irritation: Not classified

Eye Damage/Irritation: Not classified

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Carcinogenicity: May cause cancer.

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: For exposure to internal components: Dust may be harmful or cause irritation.

Symptoms/Injuries After Skin Contact: For exposure to internal components: Prolonged exposure may cause skin irritation.

Symptoms/Injuries After Eye Contact: For exposure to internal components: May cause slight irritation to eyes.

Symptoms/Injuries After Ingestion: For exposure to internal components: This material is harmful orally and can cause adverse health effects or death in significant amounts.

Chronic Symptoms: May cause cancer.

11.2. Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Boron (7440-42-8)	
LD50 Oral Rat	> 2000 mg/kg
LC50 Inhalation Rat	> 5.08 mg/l/4h
LC50 Inhalation Rat	> 5.08 mg/l/4h
calcium chromate (13765-19-0)	
LD50 Oral Rat	327 mg/kg
Iron oxide (Fe2O3) (1309-37-1)	
LD50 Oral Rat	> 10000 mg/kg (Source: IUCLID)
LC50 Inhalation Rat	5.05 mg/l/4h
calcium chromate (13765-19-0)	
IARC Group	1
National Toxicology Program (NTP) Status	Known Human Carcinogens.
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.
Iron oxide (Fe2O3) (1309-37-1)	
IARC Group	3

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SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General: Very toxic to aquatic life with long lasting effects.

Iron oxide (Fe2O3) (1309-37-1)

LC50 Fish 1	100000 mg/l (Exposure time: 96 h - Species: Danio rerio [static] Source: ECHA)
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12.2. Persistence and Degradability

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Persistence and Degradability	May cause long-term adverse effects in the environment.
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12.3. Bioaccumulative Potential

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Bioaccumulative Potential	Not established.
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12.4. Mobility in Soil

No additional information available

12.5. Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Sewage Disposal Recommendations: Do not dispose of waste into sewer. Do not empty into drains.

Waste Disposal Recommendations: Contact a licensed professional waste disposal service capable of handling waste explosives.

Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

Ecology - Waste Materials: Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

APPROVAL EX2013120793

14.1. In Accordance with DOT

Proper Shipping : IGNITERS
Name Hazard Class : 1.4S
Identification Number : UN0454
Label Codes : 1.4S
Marine Pollutant : Marine pollutant



14.2. In Accordance with IMDG

Proper Shipping Name : IGNITERS
Hazard Class : 1.4S
Identification Number : UN0454
Label Codes : 1.4S
EmS-No. (Fire) : F-B
EmS-No. (Spillage) : S-X
Marine pollutant : Marine pollutant



14.3. In Accordance with IATA

Proper Shipping Name : IGNITERS
Hazard Class : 1.4S
Identification Number : UN0454
Label Codes : 1.4S
ERG Code (IATA) : 3L



14.4. In Accordance with TDG

Proper Shipping Name : IGNITERS
Hazard Class : 1.4S
Identification Number : UN0454
Label Codes : 1.4S



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Packing Group : II
Marine Pollutant (TDG) : Marine pollutant

SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

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SARA Section 311/312 Hazard Classes	Physical hazard - Explosive Health hazard - Carcinogenicity Physical hazard - In contact with water emits flammable gas Physical hazard - Pyrophoric (liquid or solid) Health hazard - Acute toxicity (any route of exposure) Physical hazard - Combustible dust
Boron (7440-42-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
calcium chromate (13765-19-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
CERCLA RQ	10 lb
Zirconium (7440-67-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
Iron oxide (Fe2O3) (1309-37-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	

15.2. US State Regulations

Boron (7440-42-8)	
U.S. - New Jersey - Right to Know Hazardous Substance List	
calcium chromate (13765-19-0)	
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List	
Zirconium (7440-67-7)	
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List	
Iron oxide (Fe2O3) (1309-37-1)	
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List	

15.3. Canadian Regulations

Boron (7440-42-8)	
Listed on the Canadian DSL (Domestic Substances List)	
calcium chromate (13765-19-0)	
Listed on the Canadian DSL (Domestic Substances List)	
Zirconium (7440-67-7)	
Listed on the Canadian DSL (Domestic Substances List)	
Iron oxide (Fe2O3) (1309-37-1)	
Listed on the Canadian DSL (Domestic Substances List)	

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest Revision : 07/01/2024

EP-250-1 Igniter

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Other Information

: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR) SOR/2015-17.

GHS Full Text Phrases:

Expl. 1.4	Explosive Category 1.4
H250	Catches fire spontaneously if exposed to air
H260	In contact with water releases flammable gases which may ignite spontaneously
H302	Harmful if swallowed
H350	May cause cancer
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Glossary of Data Source Abbreviations

ATSDR: Agency for Toxic Substances and Disease Registry (U.S. Department of Health and Human Services)

AU_WES: Australia WES

CHEMVIEW: ChemView (U.S. Environmental Protection Agency)

EC_RAR: European Commission Renewal Assessment Report

EC_SCOEL: European Commission Scientific Committee on Occupational Exposure Limits

ECETOC: European Centre for Ecotoxicology and Toxicology of Chemicals Reports

ECHA_API: European Chemicals Agency API

ECHA_RAC: ECHA Committee for Risk Assessment

EFSA: European Food Safety Authority

EPA: U.S. Environmental Protection Agency

EPA_AEGL: Acute Exposure Guideline Levels (U.S. Environmental Protection Agency)

EPA_FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act Reregistration Eligibility Decision (U.S. Environmental Protection Agency)

EPA_HPVC: High Production Volume Chemicals (U.S. Environmental Protection Agency)

EPA_TRED: Risk Assessment for Tolerance Reassessment Eligibility Decision (U.S. Environmental Protection Agency)

EU_CLH: European Union Harmonised Classification and Labelling Proposal

EU_RAR: European Union Risk Assessment Report

FOOD_JOURN: Food Research Journal (1956)

IARC: The International Agency for Research on Cancer

IDLH: National Institute for Occupational Health and Safety Immediately Dangerous to Life or Health Value Profiles

IUCLID: International Uniform Chemical Information Database

JAPAN_GHS: Japan GHS Basis for Classification Data

JP_J-CHECK: Japan J-Check

KR_NIER: South Korea National Institute of Environmental Research Evaluations

NICNAS: Australia National Industrial Chemicals Notification and Assessment Scheme

NIOSH: National Institute for Occupational Health and Safety (U.S. Department of Health and Human Services)

NLM_CIP: National Library of Medicine ChemID plus database

NLM_HSDB: National Library of Medicine Hazardous Substance Data Bank

NLM_PUBMED: National Library of Medicine PubMed database

NTP: National Toxicology Program

NZ_CCID: New Zealand Chemical Classification and Information Database

OECD_EHSP: Environment, Health, and Safety Publication (Organisation for Economic Co-operation and Development)

OECD_SIDS: Screening Information Data Sets (Organisation for Economic Co-operation and Development)

WHO: World Health Organization

DISCLAIMER: This SDS is intended to provide a brief summary of our knowledge and guidance regarding the use of this article. The information contained here has been compiled from sources considered by EaglePicher Technologies, LLC to be dependable and is accurate to the best of the Company's knowledge. It is not meant to be an all-inclusive document on worldwide hazard communication regulations. This information is offered in good faith. Each user of this material needs to evaluate the conditions of use and design the appropriate protective mechanisms to prevent employee exposures, property damage or release to the environment. EaglePicher Technologies, LLC assumes no responsibility for injury to the recipient or third persons or for any damage to any property resulting from misuse of the product.

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