

## Safety Data Sheet

### Thermite Ignition Mix

#### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Thermite Ignition Mix

**Synonyms/Generic Names:** Aluminum and iron oxide mixture

**Product Number:** 5810

**Product Use:** Industrial, Manufacturing or Laboratory use

**Supplier:** United Nuclear Scientific  
125 N. 8th Street  
Klamath Falls, OR 97601  
**Tel: 541-205-6855**

**24 HR EMERGENCY Telephone Number**

VelocityEHS (USA): 800-255-3924

#### 2. HAZARDS IDENTIFICATION

**OSHA Hazards:** Irritant

**Target Organs:** None

**Signal Word:** Warning

**Pictograms:**



**GHS Classification:**

Skin irritation	Category 2
Eye irritation	Category 2A
Specific target organ toxicity-single exposure	Category 3

**GHS Label Elements, including precautionary statements:**

**Hazard Statements:**

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

**Precautionary Statements:**

P261	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

### Potential Health Effects

<b>Eyes</b>	Causes eye irritation.
<b>Inhalation</b>	May be harmful if inhaled. Causes respiratory tract irritation.
<b>Skin</b>	May be harmful if absorbed through skin. Causes skin irritation.
<b>Ingestion</b>	May be harmful if swallowed.

### NFPA Ratings

<b>Health</b>	1
<b>Flammability</b>	3
<b>Reactivity</b>	1
<b>Specific hazard</b>	N/A

### HMIS Ratings

<b>Health</b>	1
<b>Fire</b>	1
<b>Reactivity</b>	1
<b>Personal</b>	E

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## 3. COMPOSITION/INFORMATION ON INGREDIENTS

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<b>Component</b>	<b>Weight %</b>	<b>CAS #</b>	<b>EINECS# / ELINCS#</b>	<b>Formula</b>	<b>Molecular Weight</b>
Aluminum Powder	25	7429-90-5	231-072-3	Al	26.98 g/mol
Ferric Oxide Powder	75	1309-71-1	215-168-2	Fe <sub>2</sub> O <sub>3</sub>	159.69 g/mol

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## 4. FIRST-AID MEASURES

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<b>Eyes</b>	In case of eye contact, rinse with plenty of water and seek medical attention if necessary.
<b>Inhalation</b>	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if necessary.
<b>Skin</b>	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention if necessary.
<b>Ingestion</b>	<b>Do Not Induce Vomiting!</b> Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention if necessary.

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## 5. FIRE-FIGHTING MEASURES

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<b>Suitable (and unsuitable) extinguishing media</b>	Product is flammable at high temperatures. Use dry chemical, carbon dioxide, alcohol foam. Do not use water.
<b>Special protective equipment and precautions for firefighters</b>	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
<b>Specific hazards arising from the chemical</b>	Emits toxic fumes (aluminum oxides, iron oxides) under fire conditions. (See also Stability and Reactivity section).

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## 6. ACCIDENTAL RELEASE MEASURES

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<b>Personal precautions, protective equipment and emergency procedures</b>	See section 8 for recommendations on the use of personal protective equipment.
<b>Environmental precautions</b>	Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.
<b>Methods and materials for containment and cleaning up</b>	Pick up and arrange disposal without creating dust. Sweep up and place in suitable containers for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

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## 7. HANDLING AND STORAGE

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### Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Keep away from sources of ignition – No smoking. Avoid formation of dusts.

### Conditions for safe storage, including any incompatibilities

Store in cool, dry well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities). Never allow product to get in contact with water.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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### Occupational exposure controls:

Component	Exposure Limits	Basis	Entity
Aluminum	5 mg/m <sup>3</sup> (resp)	PEL	OSHA
	10 mg/m <sup>3</sup> (total)		
	5 mg/m <sup>3</sup> (resp)	REL	NIOSH
15 mg/m <sup>3</sup> (total)			
	1 mg/m <sup>3</sup>	TLV	ACGIH
Ferric Oxide	5 mg/m <sup>3</sup>	TLV	ACGIH
	10 mg/m <sup>3</sup>	PEL	OSHA
	5 mg/m <sup>3</sup>	REL	NIOSH

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

WEEL: Workplace Environmental Exposure Levels

CEIL: Ceiling

### Personal Protection

<b>Eyes</b>	Wear chemical safety glasses or goggles.
<b>Inhalation</b>	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
<b>Skin</b>	Wear nitrile or rubber gloves, flame retardant antistatic protective clothing.
<b>Other</b>	Not Available

### Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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Appearance (physical state, color, etc.)	White to silver powder.
Odor	Not Available
Odor threshold	Not Available
pH	Not Available
Melting point/freezing point	Not Available

Initial boiling point and boiling range	Not Available
Flash point	Not Available
Evaporation rate	Not Available
Flammability (solid, gas)	Flammable solid
Upper/lower flammability or explosive limit	Not Available
Vapor pressure	Not Available
Vapor density	Not Available
Relative density	Not Available
Solubility (ies)	Insoluble in water.
Partition coefficient: n-octanol/water	Not Available
Ignition temperature	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available

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## 10. STABILITY AND REACTIVITY

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<b>Chemical Stability</b>	Stable
<b>Possibility of Hazardous Reactions</b>	Will react with water.
<b>Conditions to Avoid</b>	Excessive heat, water.
<b>Incompatible Materials</b>	Acids, acid chlorides, halogens, oxidizing agents, bases, water.
<b>Hazardous Decomposition Products</b>	Aluminum oxide, iron oxides.

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## 11. TOXICOLOGICAL INFORMATION

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### Acute Toxicity

<b>Skin</b>	Not Available
<b>Eyes</b>	Not Available
<b>Respiratory</b>	Not Available
<b>Ingestion</b>	Not Available

### Carcinogenicity

<b>IARC</b>	1 – Group 1: Carcinogenic to humans (Aluminum). 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Ferric oxide).
<b>ACGIH</b>	A4: Not classifiable as a human carcinogen (Aluminum). A4: Not carcinogenic to humans (Ferric oxide).
<b>NTP</b>	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
<b>OSHA</b>	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

### Signs & Symptoms of Exposure

<b>Skin</b>	Irritation, redness, swelling of exposed tissues.
<b>Eyes</b>	Irritation, redness.
<b>Respiratory</b>	Irritation, especially to mucous membranes and upper respiratory tract, coughing, sneezing, headaches, nausea.
<b>Ingestion</b>	Diarrhea, nausea.

<b>Chronic Toxicity</b>	Not Available
<b>Teratogenicity</b>	Not Available
<b>Mutagenicity</b>	Not Available
<b>Embryotoxicity</b>	Not Available
<b>Specific Target Organ Toxicity</b>	Not Available

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## 12. ECOLOGICAL INFORMATION

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### Ecotoxicity

<b>Aquatic Vertebrate</b>	Not Available
<b>Aquatic Invertebrate</b>	Not Available
<b>Terrestrial</b>	Not Available

<b>Persistence and Degradability</b>	Not Available
<b>Bioaccumulative Potential</b>	Not Available
<b>Mobility in Soil</b>	Not Available
<b>PBT and vPvB Assessment</b>	Not Available
<b>Other Adverse Effects</b>	Very toxic to aquatic life.

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## 13. DISPOSAL CONSIDERATIONS

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<b>Waste Residues</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product or residues.
<b>Product Containers</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

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## 14. TRANSPORTATION INFORMATION

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US DOT	Not Dangerous Goods
TDG	Not Dangerous Goods
IMDG	Not Dangerous Goods
Marine Pollutant	No
IATA/ICAO	Not Dangerous Goods

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## 15. REGULATORY INFORMATION

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TSCA Inventory Status	All ingredients are listed on the TSCA inventory.
DSCL (EEC)	All ingredients are listed on the DSCL inventory.
California Proposition 65	Not Listed
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	Aluminum, Ferric Oxide
SARA 312	Aluminum, Ferric Oxide
SARA 313	Listed: Aluminum
WHMIS Canada	CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC). CLASS D-2A: Material causing other toxic effects (VERY TOXIC).

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## 16. OTHER INFORMATION

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Revision	Date
Revision 1	01/17/2013

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