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## SAFETY DATA SHEET

Issue Date (10-02-2014)

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### Section 1: Product and Company Identification

**Product Name:** Iridium Products

Synonym: None

**Company Name**

**Heeger Materials Inc., 230 Steele St Denver, CO 80206**

Inside USA and Canada 1-925-385-8104 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

Outside USA and Canada 1-833-222-8587 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

**CHEMTREC USA and Canada Emergency Contact Number 1-800-424-9300 24 hours a day**

**CHEMTREC Outside USA and Canada Emergency Contact Number +1-703-741-5970 24 hours a day**

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### Section 2: Hazard Identification

The substance is not classified as hazardous according to 29 CFR 1910 (OSHA GHS)

GHS Label Elements: Not applicable

Signal Word: Not applicable

Hazard Pictograms: Not applicable

Hazard Statements: Not applicable

WHMIS classification: Not controlled

Hazardous Materials Identification System)

HMIS rating (scale 0-4)

HEALTH	0	Acute effects = 0
FIRE	0	Flammability = 0
REACTIVITY	0	Physical Hazard = 0

#### Other Hazards:

Results of PBT and vPvB assessment:

PBT: Not applicable

vPvB: Not applicable

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

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### Section 3: Composition / Information on Ingredients

<u>Component</u>	<u>CAS Number</u>	<u>EC Number</u>	<u>% w/w</u>
Iridium	7439-88-5	231-095-9	≤100%

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## Section 4: First Aid Measures

<b>General advice:</b>	No special measures required.
<b>Inhalation:</b>	Seek medical treatment in case of complaints.
<b>Skin Contact:</b>	Generally, the product does not irritate skin.
<b>Eye(s) Contact:</b>	Rinse opened eye for several minutes under running water. Symptoms persist, consult a doctor.
<b>Ingestion:</b>	If symptoms persist, consult a doctor.
<b>Note to physician:</b>	No further relevant information available.

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## Section 5: Fire Fighting Measures

<b>Suitable extinguishing media:</b>	Special powder for metal fires. Do not use water.
<b>Unsuitable extinguishing media:</b>	Water.
<b>Hazardous Combustion Products:</b>	Metal oxide fumes.
<b>Firefighters Protective Equipment:</b>	No special measures required.

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## Section 6: Accidental Release Measures

<b>Personal precautions, protective equipment and emergency procedure:</b>	Not required
<b>Environmental precautions:</b>	
Do not allow material to be release to the environment without governmental permits.	
<b>Methods and material for containment and cleaning up:</b>	Pick up Mechanically.
<b>Prevention of secondary hazards:</b>	No special measures required.

### Reference for other sections

See Section 7 on Safe Handling:

See Section 8 for Personal Protection Equipment.

See Section 13 for Disposal Information.

· PAC-1: 4.7 mg/m<sup>3</sup> · PAC-2: 51 mg/m<sup>3</sup> · PAC-3: 310 mg/m<sup>3</sup>

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## Section 7: Handling and Storage

<b>Precautions for safe handling</b>	Store in a cool, dry place in tightly closed containers. Keep containers tightly sealed.
<b>Information about protection against explosions and fire:</b>	No special measures required.
<b>Conditions for safe storage, including incompatibilities</b>	
<b>Requirements to be met by storerooms and receptacles:</b>	No special requirements.
<b>Information about storage in one common storage facility:</b>	Not required.
Keep container(s) tightly sealed.	
Store in cool, dry conditions in well-sealed containers.	
<b>Specific end use(s)</b>	No further relevant information available.

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## Section 8: Exposure Controls / Personal Protection

<b>Additional Information about design of technical systems:</b>	No further data; see section 7.
<b>Control Parameters:</b>	The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
<b>Additional information:</b>	No data
<b>Exposure Controls:</b>	
<b>Personal protective equipment</b>	
<b>General protective and Hygienic measures</b>	Standard precautionary measures for handling chemicals should be followed. Maintain an ergonomically appropriate working environment.
<b>Breathing Equipment:</b>	Not required.

<b>Protection of hands:</b>	Not required.
<b>Penetration time of glove material (in minutes):</b>	Not determined
<b>Eye Protection:</b>	Safety Glasses
<b>Body Protection:</b>	Protective work clothing.

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## Section 9 Physical and Chemical Properties

Physical state	Solid in various forms
Odor	Not determined
Odor threshold	Not determined
pH	Not applicable
Melting point/range	No data available
Boiling point/range	4442°F / 2450°C
Flash point	8002°F / 4428°C
Sublimation Temperature/Start	Not determined
Flammability (solid, gas)	Not determined
Ignition temperature	Not determined
Auto Igniting	Not determined
Danger of Explosion	Product does not present an explosion hazard
Upper explosion/flammability limit	Not determined
Lower explosion/flammability limit	Not determined
Vapor pressure	Not applicable
Density @ 20°C (68°F)	22.65 g/cm <sup>3</sup> (189.014lbs/gal)
Relative density	Not applicable
Vapor density	Not applicable
Evaporation rate	Not applicable
Solubility in H <sub>2</sub> O	Not determined
Partition coefficient (n-octanol/water)	Not determined
Viscosity, dynamic	Not applicable
Viscosity, kinematic	Not applicable

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## Section 10: Stability and Reactivity

<b>Reactivity:</b>	No known information.
<b>Chemical stability:</b>	Stable under recommended storage conditions.
<b>Thermal decomposition/conditions to be avoided</b>	Decomposition will not occur if used and stored according to specifications.
<b>Possibility of hazardous reactions:</b>	No dangerous reactions known.
<b>Conditions to avoid</b>	No further relevant information available.
<b>Incompatible materials:</b>	No further information known.
<b>Hazardous decomposition products:</b>	Metal oxide fume

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## Section 11: Toxicological Information

<b>Information on Toxicological effects</b>	No known effects
<b>Acute Toxicity:</b>	
<b>LD/LC50 values for classification:</b>	No Data
<b>Skin irritation or Corrosion:</b>	Powder: irritant effect.
<b>Eye irritation:</b>	Powder: irritant effect.
<b>Sensitization:</b>	No sensitizing effects known
<b>Germ cell mutagenicity:</b>	No known effects
<b>Carcinogenicity:</b>	No classification data on carcinogenic properties of this material is available from EPA, IARC, NTP, OSHA or ACGIH.
<b>Reproductive toxicity:</b>	No effects known:
<b>Specific target organ toxicity-repeated exposure:</b>	No effects known
<b>Specific target organ toxicity-single exposure:</b>	No effects known

<b>Aspiration Hazard:</b>	No known effects
<b>Subacute to chronic toxicity:</b>	No known effects
<b>Additional toxicological Information:</b>	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

## Section 12: Ecological Information

### Toxicity

<b>Aquatic toxicity:</b>	No other further information available.
<b>Persistence and degradability:</b>	No other further information available.
<b>Bioaccumulative potential:</b>	No other further information available.
<b>Mobility in soil:</b>	No other further information available.

### Additional Ecological information

#### General Cautions:

Do not allow material to be released to the environment without proper governmental permits.  
Do not allow undiluted or large quantities of material to reach ground water, water course, or sewage system.  
Avoid transfer into the environment.

#### Results of PBT and vPvB assessment:

<b>PBT:</b>	Not Applicable
<b>vBvB:</b>	Not Applicable
<b>Other adverse effects</b>	No further relevant information available

## Section 13 Disposal Considerations

**Recommendations:** Consult state, local or national regulations to ensure proper disposal.

### Uncleaned packagings:

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

## Section 14: Transportation Information

<u>US DOT:</u>	Not regulated for hazardous material transportation.
<u>ADN:</u>	Not regulated for hazardous material transportation.
<u>IATA:</u>	Not regulated for hazardous material transportation.
<u>IMDG:</u>	Not regulated for hazardous material transportation.
Marine Pollutant:	No
Canadian TDG:	Not regulated for hazardous material transportation.

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

#### Special precautions for user

*The transport classification(s) provided herein are for information purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet (SDS). Transportation classifications may vary by mode of transportation, package size, and variations in regional or country regulations.*

## Section 15: Regulatory Information

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

<b>GHS Label Elements:</b>	Not Applicable
<b>Hazard Pictograms:</b>	Not Applicable
<b>Signal Word:</b>	Not Applicable
<b>Hazard Statements:</b>	Not Applicable
<b>National:</b>	All components are Listed in the US (EPA) Toxic Substances Control Act Chemical substance inventory.
All components are Listed on the Canadian Domestic Substances List (DSL)	

<b>SARA Section 313 (Specific Toxic Chemical Listings):</b>	Substance is not listed.
<b>California Proposition 65:</b>	
<b>Prop 65- Chemicals known to cause cancer:</b>	Substance is not listed
<b>Prop 65- Developmental toxicity,</b>	Substance is not listed
<b>Prop 65- Developmental toxicity, female</b>	Substance is not listed
<b>Prop 65- Developmental toxicity, male</b>	Substance is not listed
<b>Information about limitation of use:</b>	For use only by technically qualified individuals.

<b>Substance of Very High Concern (SVHC)</b>	Substance is not listed
<b>According to REACH Regulations (EC) No. 1907/2006:</b>	

<b>The conditions and restrictions according to Article 67 and Annex XVII of the Regulation (EC) No. 1907/2006 (REACH) for manufacturing, placing on the market use must be observed.</b>	Substance is not listed
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<b>Annex XIV of the REACH Regulations (requiring Authorization for use):</b>	Substance is not listed
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<b>Chemical Safety Assessment</b>	A chemical Safety Assessment has not been carried out
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## Section 16: Other Information

This Safety Data Sheet (SDS) is intended to comply with the OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

### Full text of other abbreviations

ACGIH:	USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI:	ACGIH - Biological Exposure Indices (BEI)
NIOSH REL:	USA. NIOSH Recommended Exposure Limits
OSHA Z-1:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
OSHA Z-2:	USA. Occupational Exposure Limits (OSHA) - Table Z-2
US WEEL:	USA. Workplace Environmental Exposure Levels (WEEL)
ACGIH / TWA:	8-hour, time-weighted average
ACGIH / STEL:	Short-term exposure limit
NIOSH REL/TWA:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL/ST:	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
OSHA Z-1 / TWA:	8-hour time weighted average
OSHA Z-2/TWA:	8-hour time weighted average
OSHA Z-2/CEIL:	Acceptable ceiling concentration
OSHA Z-2/Peak:	Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift
US WEEL/TWA:	8-hr TWA

AICS - Australian Inventory of Chemical Substances;  
 AIIC - Australian Inventory of Industrial Chemicals;  
 ASTM - American Society for the Testing of Materials;  
 bw - Body weight;  
 CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act;  
 CMR - Carcinogen, Mutagen or Reproductive Toxicant;  
 DIN - Standard of the German Institute for Standardization;  
 DOT - Department of Transportation;  
 DSL - Domestic Substances List (Canada);  
 ECx - Concentration associated with x% response;  
 EHS - Extremely Hazardous Substance;  
 ELx - Loading rate associated with x% response;

EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan);  
ErCx - Concentration associated with x% growth rate response;  
ERG - Emergency Response Guide;  
GHS - Globally Harmonized System;  
GLP - Good Laboratory Practice;  
HMIS - Hazardous Materials Identification System;  
IARC - International Agency for Research on Cancer;  
IATA - International Air Transport Association;  
IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk;  
IC50 - Half maximal inhibitory concentration;  
ICAO - International Civil Aviation Organization;  
IECSC - Inventory of Existing Chemical Substances in China;  
IMDG - International Maritime Dangerous Goods;  
IMO - International Maritime Organization;  
ISHL - Industrial Safety and Health Law (Japan);  
ISO - International Organization for Standardization;  
KECI - Korea Existing Chemicals Inventory;  
LC50 - Lethal Concentration to 50 % of a test population;  
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose);  
MARPOL - International Convention for the Prevention of Pollution from Ships;  
MSHA - Mine Safety and Health Administration;  
n.o.s. - Not Otherwise Specified;  
NFPA - National Fire Protection Association;  
NO(A)EC - No Observed (Adverse) Effect Concentration;  
NO(A)EL - No Observed (Adverse) Effect Level;  
NOELR - No Observable Effect Loading Rate;  
NTP - National Toxicology Program;  
NZIoC - New Zealand Inventory of Chemicals;  
OECD - Organization for Economic Co-operation and Development;  
OPPTS - Office of Chemical Safety and Pollution Prevention;  
PBT - Persistent, Bioaccumulative and Toxic substance;  
PICCS - Philippines Inventory of Chemicals and Chemical Substances;  
(Q)SAR - (Quantitative) Structure Activity Relationship;  
RCRA - Resource Conservation and Recovery Act;  
REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals;  
RQ - Reportable Quantity;  
RTECS - Registry of Toxic Effects of Chemical Substances;  
SADT - Self-Accelerating Decomposition Temperature;  
SARA - Superfund Amendments and Reauthorization Act;  
SDS - Safety Data Sheet;  
TCSI - Taiwan Chemical Substance Inventory;  
TSCA - Toxic Substances Control Act (United States);  
UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods;  
vPvB - Very Persistent and Very Bioaccumulative

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#### Disclaimer

Heeger Materials Inc. makes no warranty of any kind regarding the information furnished herein. Users should independently determine the suitability and completeness of information from all sources. While this data is presented in good faith and believed to be accurate, it should be considered only as a supplement to other information gathered by the user. It is the User's responsibility to assure the proper use and disposal of these materials as well as the safety and health of all personnel who may work with or otherwise come in contact with these materials.