



SDS

SAFETY DATA SHEET

Product Name: (as shown on label)	AZW/LAII
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May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910200(g). Standards must be consulted for specific requirements.

Section I - Identification

Part #:	AZW/LAII	Manufacturer:	AZ Technology Inc.
Spec/Rev #:	CPS-C-006 Rev. D	Address:	180 West Park Loop NW Huntsville AL, 35806
Usage:	White Inorganic Thermal Control Coating	Company Ph.# :	(256) 837-9877
		Emergency #:	(256) 837-9877

Section II - Hazard Identification

Hazard statement and classification	H315	Skin irritation (Category 2): Causes skin irritation
	H319	Eye irritation (Category 2A): Causes serious eye irritation
	H335	Respiratory system, Specific target organ toxicity - single exposure (Category 3): May cause respiratory irritation
Signal Word	Caution: Irritant (eye and skin).	
Pictograms		
Safety Phrases	S26	contact with eyes, rinse immediately with plenty of water and seek medical advice
Precautionary Statements	P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
	P264	Wash skin thoroughly after handling.
	P271	Use only outdoors or in well-ventilated area.
	P280	Wear eye/face protection, gloves/protective clothing.
	P302 + P352	IF ON SKIN: Wash with plenty of soap and water. Call poison center/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. Call poison center/doctor/physician if you feel unwell.
	P305 + P338 + P351	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if easy to do. Continue rinsing.
	313 + P332 + P337	If skin/eye irritation occurs and/or persists get medical advice/attention.
	P362	Take off contaminated clothing and wash before reuse.
	P233 + P403	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.	
P501	Dispose of contents/container to an approved waste disposal plant.	

Section III - Composition/Information on Ingredients

Common Name	CAS#	OSHA PEL	ACGIH TLV	Other Limits Recommended
Gadolinium(III) acetylacetonate	64438-54-6	non given	none given	n/a
Gadolinium(III) Oxide	12064-62-9	non given	none given	n/a

Gallium Oxide	12024-21-4	non given	none given	n/a
Potassium Silicate	1312-76-1	n/a	n/a	5 mg/m ³
Distilled Water	n/a	n/a	n/a	n/a

AZ Technology reserves all rights to mix percentages and methods withheld as a trade secret.

Section IV - First-Aid Measures

Inhalation:	If inhaled, remove to fresh air and give oxygen if difficulty breathing.
Skin Irritation:	Wash skin with soap and water.
Eye Contact:	Flush eyes with copious amounts of water.
Ingestion:	If swallowed, wash conscious victims mouth out with water
Important symptoms or effects including acute or delayed:	Burning pain in nose and throat; pain, redness and tearing of eyes; itching and localized burning sensation on skin; ingestion produces vomiting due to gastric irritation. Medical Conditions: Asthma, lung, and skin diseases.
Treatment Recommendations:	Consult a physician in all cases.

Section V - Fire-Fighting Measures

Extinguishing recommendations	Water or other
Combustion/Flashpoint Information	Non-combustible
Equipment recommendations	n/a

Section VI - Accidental Release Measures

Preventive precautionary measures	Wear respirator, safety goggles, rubber boots, and gloves.
Emergency procedures (i.e. evac, consulting experts)	none
Containment procedures	none
Cleanup Procedures	For solids, sweep up and place in bag. Hold for waste disposal. For liquids use water or soap.

Section VII - Handling and Storage

Safe handling precautions	Keep at ambient temperatures.
Safe storage recommendations (including incompatibilities)	Store at dry ambient conditions

Section VIII - Exposure Controls/Personal Protection

See Section III chart for: OSHA Permissible Exposure Limits (PELs), American Conference of Governmental Industrial Hygienists (ACGIH), Threshold Limit Values (TLVs), other limits and/or recommendations

Ventilation and/or enclosure recommendations	Wear appropriate NIOSH-approved respirator, safety goggles, gloves, and other protective clothing. Safety shower and eye bath should be within direct access. Do not breath dust. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Use with adequate ventilation. Wash thoroughly after handling.
PPE recommended	Protective gloves, Barrier creams may help prevent skin irritation to hypersensitive people.
PPE requirement	Use NIOSH approved mist respirator where spray occurs. Use safety eyewear.

Section IX - Physical and Chemical Properties

Appearance	Viscous white colored liquid	Flammability/Explosive Limits	n/a
Odor	Odorless	Odor Threshold	n/a
PH	Slightly Alkaline	Vapor Pressure	none given
Melting Point	none given	Vapor Density	none given

Freezing Point	0°C	Relative Density	none given
Flash Point	Non-Combustable	Solubility	Complete in Water
Boiling Point	~100°C	Evaporation rate	none given
Viscosity	none given	Flammability (solid, gas)	n/a
Decomposition temp	none given	Partition Coefficient: n-octanol/water	n/a

Section X - Stability and Reactivity

Reactivity (suggested by test data)	No data Available
Conditions that should be avoided	Flammable hydrogen gas may be produced on prolonged contact with metals (i.e. Aluminum, Tin, Lead, or Zinc).
Stable under ambient conditions	Stable
Polymerize thresholds	Will Not Occur

Section XI - Toxicological Information

Acute Toxicity	Gadolinium(III) Acetylacetonate	Gadolinium(III) Oxide	Gallium(III) Oxide	Potassium Silicate
Oral LD50:	no data available	>5,000 mg/kg (rat)	>10,000 mg/kg (mouse)	> 5,000 mg/kg bw (rat)
Inhalation LC50:	no data available	no data available	no data available	> 2.06 g/m ³ (rat)
Dermal LD50 (rat):	no data available	no data available	no data available	> 5,000mg/kg bw
Chronic Toxicity:	no data available	no data available	no data available	no data available
Corrosion Irritation:	no data available	mild eye irritation	no data available	mist may cause irritation
Sensitization:	no data available	no data available	no data available	not sensitising
Single Target Organ (STOT):	no data available	no data available	no data available	not classified
Numerical Measures:	no data available	no data available	no data available	no data available
Carcinogenicity:	No components of this product present at levels greater than or equal to 0.1% is identified as: Probable, possible or confirmed human carcinogen by IARC; a carcinogen or potential carcinogen by ACGIH; a known or anticipated carcinogen by NTP; a carcinogen or potential carcinogen by OSHA			no structure alerts
Mutagenicity:	no data available	no data available	no data available	No evidence of genotoxicity
Reproductive Toxicity:	Overexposure may cause reproductive disorder(s) based on tests with laboratory animals	no data available	no data available	no evidence of reproductive toxicity
Aspiration Hazard:	no data available	no data available	no data available	not classified
Additional Information:	RTECS: not available May liberate 2,4-Pentanedione upon decomposition. 2,4-Pentanedione has the following toxicological hazards: toxic, irritant, neurological hazard, teratogen, possible mutagen, target organ - thymus. In humans, 2,4-pentanedione is reported to cause contact dermatitis and contact urticaria. Stomach Irregularities -Based on human evidence	RTECS: not available	RTECS: not available Remarks: Peripheral Nerve and Sensation:Flaccid paralysis without anesthesia (usually neuromuscular blockage). Behavioral: Somnolence (general depressed activity). Behavioral: Good intake (animal).	n/a

Section XII - Ecological Information (non-mandatory)

	Gadolinium(III) Acetylacetonate	Gadolinium(III) Oxide	Gallium(III) Oxide	Potassium Silicate
Toxicity:	no data available	no data available	no data available	LC50 - Leuciscus idus (fish) - >146 mg/l - 48 h EC50 - Daphnia magna - > 146 mg/l - 24 h
Persistence and degradability:	no data available	no data available	no data available	Inorganic soluble silicates, upon dilution, rapidly depolymerise into molecular species indistinguishable from natural dissolved silica
Bioaccumulative potential:	no data available	no data available	no data available	Inorganic. The substance has no potential for bioaccumulation
Mobility in soil:	no data available	no data available	no data available	n/a
Results of PBT and vPvB assesment:	Not required	Not required	Not required	not classified as PBT or vPvB
Other adverse effects:	no data available	no data available	no data available	The alkalinity of this material will have a local effect on ecosystems sensitive to changes in pH.

Section XIII - Disposal Considerations (non-mandatory)**Recommendations for:**

Disposal Container(s)	none
Disposal Method	Solids; bury in landfill site approved for chemical and hazardous waste disposal. Liquids; neutralize with dilute acid and landfill solids per local, state, and federal regulations.
Sewage Disposal	Flush neutralized liquid to sewer with plenty of water. Observe all local, state, and federal environmental regulations.

Section XIV - Transport Information (non-mandatory)

UN#	n/a
UN Proper Shipping Name	n/a
Transport Hazard Class	n/a
Packing Group Number (if applicable, based on the degree of hazard)	n/a
Environmental hazards (marine pollutant? International Maritime Dangerous Goods Code (IMDG))	n/a
Guidance on Bulk Transport	n/a

Section XV - Regulatory Information (non-mandatory)

It is the responsibility of each company to comply to proper regional regulations.

Section XVI - SDS History

Line #	Date	Revision	Comments
1	12/31/2015	C	MSDS to SDS
2	6/1/2016	D	Address change