



SDS

SAFETY DATA SHEET


Product Name: (as shown on label)	AZ-93
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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 #:	AZ-93	Manufacturer:	AZ Technology Inc.
Spec/Rev #:	CPS-C-001 Rev. F	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	H400 category 1	Very toxic to aquatic life
	H410 category 1	Very toxic to aquatic life with long lasting effects
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	P273	Avoid release to the environment
	P391	Collect spillage
	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
Zinc Oxide	1314-13-2	10 mg/m ³	10 mg/m ³	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 requiremented	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	Zinc Oxide	Potassium Silicate
Oral LD50:	7,950 mg/kg (mouse)	> 5,000 mg/kg bw (rat)
Inhalation LC50:	2,500 mg/m ³ (mouse)	> 2.06 g/m ³ (rat)
Dermal LD50 (rat):	no data available	> 5,000mg/kg bw
Chronic Toxicity:	no data available	no data available
Corrosion Irritation:	mild skin and eye irritation (24hr)	mist may cause irritation
Sensitization:	no data available	not sensitising
Single Target Organ (STOT):	no data available	not classified
Numerical Measures:	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:	Germ cell Hamster Embryo: Unsheduled DNA synthesis; Morphological transformation; Sister chromatid exchange. Guinea pig: Unsheduled DNA synthesis.	No evidence of genotoxicity
Reproductive Toxicity:	no data available	no evidence of reproductive toxicity
Aspiration Hazard:	no data available	not classified
Additional Information:	RTECS: ZH4810000 Zinc oxide dust or fume can irritate the respiratory tract. Prolonged skin contact can produce a severe dermatitis called oxide pox. Exposure to high levels of dust or fume can cause metallic taste, marked thirst, coughing, fatigue, weakness, muscular pain, and nausea followed by fever and chills. Severe overexposure may result in bronchitis or pneumonia with a bluish tint to skin, prolonged or repeated exposure can cause: reversible liver enzyme abnormalities	n/a

Section XII - Ecological Information (non-mandatory)

	Zinc Oxide	Potassium Silicate
Toxicity:	LC50 - Oncorhynchus mykill (rainbow trout) - 1.1 mg/l - 96 h EC50 - Daphnia magna (water flea) - .096 mg/l - h8 h	LC50 - Leuciscus idus (fish) - >146 mg/l - 48 h EC50 - Daphnia magna - > 146 mg/l - 24 h
Persistence and degradability:	no data available	Inorganic soluble silicates, upon dilution, rapidly depolymerise into molecular species indistinguishable from natural dissolved silica
Bioaccumulative potential:	no data available	Inorganic. The substance has no potential for bioaccumulation
Mobility in soil:	no data available	n/a
Results of PBT and vPvB assesment:	not required	not classified as PBT or vPvB
Other adverse effects:	very toxic to aquatic life	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

<u>Line #</u>	<u>Date</u>	<u>Revision</u>	<u>Comments</u>
1	12/31/2015	E	MSDS to SDS
2	6/1/2016	F	Address change