

## LTS Research Laboratories, Inc. Material Safety Data Sheet Silicon Carbide-Aluminum

## 1. Product and Company Identification

Trade Name: Silicon carbide-aluminum

Chemical Formula: SiC-Al

Recommended Use: Scientific research and development

Manufacturer/Supplier: LTS Research Laboratories, Inc.

Street: 37 Ramland Road
City: Orangeburg
State: New York
Zip Code: 10962
Country: USA

Tel #: 845-587-2436 / 845-lts-chem

24-Hour Emergency Contact: 800-424-9300 (US & Canada)

+1-703-527-3887 (International)

## 2. Hazards Identification

Signal Word: Warning



Hazard Statements: H315 Causes skin irritation

H319 Causes serious eye irritation H335: May cause respiratory irritation

Precautionary Statements: P261 Avoid breathing dust/fume/vapor

P280: Wear protective gloves/protective clothing/eye protection/face

protection

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do –

continue rinsing

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest

in a position comfortable for breathing

P405: Store locked up

P501: Dispose of contents/container in accordance with

local/regional/national/international regulations

HMIS Health Ratings (0-4):

Health: 1 Flammability: 0 Physical: 0

	3. Composition	
Chemical Family:	Ceramic	
Additional Names:	None	
Silicon carbide (SiC):		
Percentage:	100 wt%	
CAS #:	409-21-2	
EC #:	206-991-8	
Aluminum (Al):		
Percentage:	100 wt%	
CAS #:	7429-90-5	
EC #:	231-072-3	
	4. First Aid Procedures	
General Treatment:	Seek medical attention if symptoms persist.	
Special Treatment:	None	
Important Symptoms:	None	
Inhalation:	Remove victim to fresh air. Supply oxygen if breathing is difficult.	
Ingestion:	Give one to two glasses of water and induce vomiting. Never induce	
	vomiting or give anything by mouth to an unconscious person.	
Skin:	Wash affected area with mild soap and water. Remove any	
E	contaminated clothing.	
Eyes:	Flush eyes with water, blinking often for several minutes. Remove	
	contact lenses if present and easy to do. Continue rinsing	
	5. Fire and Explosion Hazards Data	
Flammability:	Non-flammable	
Flash Point:	N/A	
Autoignition Temperature:	N/A	
Extinguishing Media:	No special restrictions – use suitable extinguishing agent for	
	surrounding material and type of fire. Do not use water for metal fires	
	use CO <sub>2</sub> , sand, extinguishing powder.	
Spec. Fire Fighting Procedure:	Use full-face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes.	
	6. Accidental Release Measures	
If Material Is Released/Spilled:	Wear appropriate respiratory and protective equipment specified in	
-	special protection information. Isolate spill area and provide	
	ventilation. Vacuum up spill using a high efficiency particulate	
	absolute (HEPA) air filter and place in a closed container for disposal.	
	Take care not to raise dust.	
Environmental Precautions:	Isolate runoff to prevent environmental pollution.	
	7. Handling and Storage	
Handling Conditions:	Wash thoroughly after handling.	
Storage Conditions:	Store in a cool dry place in a tightly sealed container. Store apart from	
	materials and conditions listed in section 10.	
Work/Hygienic Maintenance:	Do not use tobacco or food in work area. Wash thoroughly before	
	eating and smoking. Do not blow dust off clothing or skin with	
Month of the	compressed air.	
Ventilation:	Provide sufficient ventilation to maintain concentration at or below	
	threshold limit.	

Special Equipment: Respiratory Protection: Protective Gloves: Eye Protection: Body Protection:  Poblished Protection: Protective Gloves: Eye Protection: Safety glasses or goggles Protective work clothing. Wear close-toed shoes and long sleeves/pants.  9. Physical and Chemical Characteristics  Color Powder, Granules, Pellets, Sputtering target, Custom parts Odorless Water Solubility: Insoluble Boiling Point: N/A Melting Point: N/A Molecular weight:  N/A Molecular weight:  Stable under recommended storage conditions None Incompatible Conditions: Hazardous Decomposition Products:  Stable under recommended storage conditions None Carbon monoxide, Carbon dioxide, Metal oxide fume  11. Toxicological Information  Potential Health Effects: Eyes: Skin: May cause serious irritation Skin: May cause irritation Ingestion: Inhalation: May cause irritation May cause irritation Chronic: N/A  Median Lethal Dose: N/A  Median Lethal Dose: N/A  Median Lethal Dose: N/A	8. Exposure Controls and Personal Protection		
Threshold Limit Value:    Special Equipment: Respiratory Protection: Protective Gloves: Rubber gloves Eye Protection: Protective work clothing. Wear close-toed shoes and long sleeves/pants.    Safety glasses or goggles	Permissible Exposure Limits:	5 mg/m <sup>3</sup> as SiC, non-fibrous respirable fraction	
Special Equipment: Respiratory Protection: Protective Gloves: Eye Protection: Body Protection:  Safety glasses or goggles Protective work clothing. Wear close-toed shoes and long sleeves/pants.  9. Physical and Chemical Characteristics  Color Form: Powder, Granules, Pellets, Sputtering target, Custom parts Odor: Odor: Odoress Water Solubility: Insoluble Boiling Point: N/A Melting Point: N/A Molecular weight:  N/A  10. Reactivity  Stable under recommended storage conditions None None None None Carbon monoxide, Carbon dioxide, Metal oxide fume  11. Toxicological Information  Potential Health Effects: Eyes: Skin: May cause serious irritation Inpastion: May cause irritation May cause irritation Inhalation: Chronie: N/A  Signs & Symptoms: N/A  Median Lethal Dose: N/A  N/A	•		
Respiratory Protection: Protective Gloves: Eye Protection: Body Protection: Black Protective work clothing. Wear close-toed shoes and long sleeves/pants.  9. Physical and Chemical Characteristics  Color Black Powder, Granules, Pellets, Sputtering target, Custom parts Odorless Water Solubility: Insoluble Boiling Point: N/A Melting Point: N/A Molecular weight: N/A  10. Reactivity  Stable under recommended storage conditions None Incompatible Conditions: Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Metal oxide fume  11. Toxicological Information  Potential Health Effects: Eyes: May cause serious irritation Nay cause irritation May cause irritation Ingestion: May cause irritation May cause irritation Chronic: N/A  Signs & Symptoms: N/A Median Lethal Dose: N/A  Median Lethal Dose: N/A  Median Lethal Dose: N/A  Carcinogen: N/A	Threshold Limit Value:		
Protective Gloves: Eye Protection: Body Protection: Body Protection: Body Protection:  9. Physical and Chemical Characteristics  Powder, Granules, Pellets, Sputtering target, Custom parts Odorless Insoluble Boiling Point: N/A Melting Point: N/A Molecular weight:  N/A Molecular weight:  N/A  N/A  None Carbon monoxide, Carbon dioxide, Metal oxide fume  11. Toxicological Information  Potential Health Effects: Eyes: Skin: May cause serious irritation May cause irritation May cause irritation Chronic: N/A  Median Lethal Dose: N/A  Carcinogen:	Special Equipment:	None	
Eye Protection: Body Protection: Body Protection: Safety glasses or goggles Protective work clothing. Wear close-toed shoes and long sleeves/pants.  9. Physical and Chemical Characteristics  Color Form: Odor: Odor: Odorless Water Solubility: Boiling Point: N/A Melting Point: N/A Melting Point: N/A Molecular weight: N/A Molecular weight: N/A  Stable under recommended storage conditions None Incompatible Conditions: Hazardous Decomposition Products:  11. Toxicological Information  Potential Health Effects: Eyes: Skin: May cause serious irritation May cause irritation Ingestion: Inhalation: Inhalation: Chronic: N/A  Median Lethal Dose: N/A  Carcinogen:	Respiratory Protection:	Dust Respirator	
Body Protection:  Protective work clothing. Wear close-toed shoes and long sleeves/pants.  9. Physical and Chemical Characteristics  Color Form: Odor: Odor: Odoress Water Solubility: Insoluble Boiling Point: N/A Median Lethal Dose: None  10. Reactivity  Stable under recommended storage conditions None Carbon monoxide, Carbon dioxide, Metal oxide fume  11. Toxicological Information  Potential Health Effects: Eyes: May cause serious irritation May cause irritation May cause irritation N/A  Median Lethal Dose: N/A  Median Lethal Dose: N/A  Powder, Granules, Pellets, Sputtering target, Custom parts Odorless None Insoluble N/A  N/A  N/A  N/A  N/A  N/A  Potential Health Effects: Eyes: May cause serious irritation May cause irritation May cause irritation May cause irritation N/A  N/A  Median Lethal Dose: N/A  Median Lethal Dose: N/A  N/A  Median Lethal Dose: N/A	Protective Gloves:	Rubber gloves	
sleeves/pants.  9. Physical and Chemical Characteristics  Color Black Form: Powder, Granules, Pellets, Sputtering target, Custom parts Odor: Odorless Water Solubility: Insoluble Boiling Point: N/A Melting Point: N/A Density: N/A Molecular weight: N/A  IO. Reactivity  Stability: Stable under recommended storage conditions None Incompatible Conditions: None Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Metal oxide fume  11. Toxicological Information  Potential Health Effects: Eyes: May cause serious irritation Skin: May cause irritation Ingestion: May cause irritation Inhalation: May cause irritation Inhalation: May cause irritation Inhalation: May cause irritation Chronic: N/A  Signs & Symptoms: N/A Aggravated Medical Conditions: N/A  Median Lethal Dose: N/A  Carcinogen: N/A	Eye Protection:	Safety glasses or goggles	
9. Physical and Chemical Characteristics  Color Black Form: Powder, Granules, Pellets, Sputtering target, Custom parts Odorless Water Solubility: Insoluble Boiling Point: N/A Melting Point: N/A Molecular weight: N/A Molecular weight: N/A  Stability: Stable under recommended storage conditions None None None Carbon monoxide, Carbon dioxide, Metal oxide fume  11. Toxicological Information  Potential Health Effects: Eyes: May cause serious irritation Skin: May cause irritation Ingestion: May cause irritation Inhalation: May cause irritation Inhalation: May cause irritation Chronic: N/A  Signs & Symptoms: N/A  Median Lethal Dose: N/A  Median Lethal Dose: N/A  Median Lethal Dose: N/A  Carcinogen: N/A	Body Protection:	Protective work clothing. Wear close-toed shoes and long	
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Boiling Point: N/A Melting Point: N/A Density: N/A Molecular weight: N/A   10. Reactivity  Stability: Stable under recommended storage conditions None Incompatible Conditions: None Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Metal oxide fume  11. Toxicological Information  Potential Health Effects: Eyes: May cause serious irritation Skin: May cause irritation Ingestion: May cause irritation Inhalation: May cause irritation Inhalation: May cause irritation N/A  Signs & Symptoms: N/A  Aggravated Medical Conditions: N/A  Median Lethal Dose: N/A  Carcinogen: N/A	Odor:	Odorless	
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Stability:  Reacts With: Incompatible Conditions: Hazardous Decomposition Products:  Potential Health Effects: Eyes: Skin: Ingestion: Inhalation: Inhalation: Chronic:  Signs & Symptoms: Aggravated Medical Conditions:  None Carcinogen:  None None Carbon dioxide, Metal oxide fume  11. Toxicological Information  May cause serious irritation May cause irritation May cause irritation May cause irritation N/A  N/A  N/A  N/A  Median Lethal Dose: N/A  N/A  Carcinogen: N/A	Density:	N/A	
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Incompatible Conditions: Hazardous Decomposition Products:  Carbon monoxide, Carbon dioxide, Metal oxide fume  11. Toxicological Information  Potential Health Effects:  Eyes:  Skin:  May cause serious irritation  May cause irritation  Ingestion: Inhalation: Chronic:  May cause irritation  May cause irritation  May cause irritation  N/A  Signs & Symptoms: N/A  Aggravated Medical Conditions:  N/A  Median Lethal Dose:  N/A  Carcinogen:  N/A	Stability:	Stable under recommended storage conditions	
Hazardous Decomposition Products:  Carbon monoxide, Carbon dioxide, Metal oxide fume  11. Toxicological Information  Potential Health Effects:  Eyes:  May cause serious irritation  Skin:  May cause irritation  N/A  Signs & Symptoms:  N/A  Aggravated Medical Conditions:  N/A  Median Lethal Dose:  N/A  Carcinogen:  N/A	Reacts With:	None	
Dotential Health Effects:  Eyes:  May cause serious irritation  Skin:  May cause irritation  Ingestion:  Inhalation:  Chronic:  N/A  Signs & Symptoms:  Aggravated Medical Conditions:  N/A  Median Lethal Dose:  N/A  Carcinogen:  N/A	Incompatible Conditions:	None	
Potential Health Effects:  Eyes: May cause serious irritation Skin: May cause irritation Ingestion: May cause irritation Inhalation: May cause irritation Chronic: N/A  Signs & Symptoms: N/A  Aggravated Medical Conditions: N/A  Median Lethal Dose: N/A  Carcinogen: N/A	Hazardous Decomposition Products:	Carbon monoxide, Carbon dioxide, Metal oxide fume	
Eyes: May cause serious irritation Skin: May cause irritation Ingestion: May cause irritation Inhalation: May cause irritation Chronic: N/A  Signs & Symptoms: N/A  Aggravated Medical Conditions: N/A  Median Lethal Dose: N/A  Carcinogen: N/A		11. Toxicological Information	
Skin: May cause irritation Ingestion: May cause irritation Inhalation: May cause irritation Chronic: N/A  Signs & Symptoms: N/A  Aggravated Medical Conditions: N/A  Median Lethal Dose: N/A  Carcinogen: N/A	Potential Health Effects:		
Ingestion: Inhalation: Chronic:  May cause irritation May cause irritation May cause irritation May cause irritation N/A  Signs & Symptoms: N/A  Aggravated Medical Conditions: N/A  Median Lethal Dose: N/A  Carcinogen: N/A	Eyes:	May cause serious irritation	
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Chronic: N/A  Signs & Symptoms: N/A Aggravated Medical Conditions: N/A  Median Lethal Dose: N/A  Carcinogen: N/A			
Signs & Symptoms: N/A Aggravated Medical Conditions: N/A  Median Lethal Dose: N/A  Carcinogen: N/A			
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Aggravated Medical Conditions: N/A  Median Lethal Dose: N/A  Carcinogen: N/A	Signs & Symptoms:	N/A	
Carcinogen: N/A	Aggravated Medical Conditions:	N/A	
	Median Lethal Dose:	N/A	
12. Ecological Information	Carcinogen:	N/A	
		12. Ecological Information	
Ecological data is not available.	Ecological data is not available.		

13. Disposal Considerations

Dispose of in accordance with local, state, national, and international regulations.

Hazardous:	Not hazardous for transportation.	
Hazard Class:	N/A	
Packing Group:	N/A	
UN Number:	N/A	
Proper Shipping Name:	N/A	
	15. Regulatory Information	
Sec 302 Extremely Hazardous:	No	
Sec 304 Reportable Quantities:	N/A	
Sec 313 Toxic Chemicals:	Yes	

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

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