

Material Safety Data Sheet

SPARKLE SILVER® 5500 Aluminum Paste



1. Product and company identification

Product name : SPARKLE SILVER® 5500 Aluminum Paste
Manufacturer : Silberline Mfg. Co., Inc.
130 Lincoln Drive
Tamaqua, PA 18252
Validation date : 16 April 2012
Responsible name : Tom Shober or Joe Monkiewicz
E-mail address of person responsible for this SDS : shobert@silberline.com /
monkiewiczj@silberline.com
In case of emergency : Chemtrec 800-424-9300
Internationally 703-527-3887
Product type : Solid.

2. Hazards identification

Physical state : Solid. [Paste.]
Odor : low [Slight]
Color : Silvery.
OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Emergency overview : CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.
Contains material that can cause target organ damage.
Precautionary measures : Do not eat, drink or smoke when using this product. Wash thoroughly after handling.
Routes of entry : Dermal contact. Eye contact. Ingestion.
Potential chronic health effects
Chronic effects : Contains material that can cause target organ damage.
Target organs : Contains material which causes damage to the following organs: kidneys, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.
Contains material which may cause damage to the following organs: lungs, the nervous system, liver, testes.
Medical conditions aggravated by over-exposure : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (Section 11)

3. Composition/information on ingredients

<u>Name</u>	<u>CAS number</u>	<u>%</u>
Aluminum	7429-90-5	63 - 65
Solvent naphtha (petroleum), light arom.	64742-95-6	17 - 19
Stoddard Solvent	8052-41-3	17 - 19

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

Eye contact : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
Skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

4 . First aid measures

- Inhalation** : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5 . Fire-fighting measures

- Flammability of the product** : No specific fire or explosion hazard.

Extinguishing media

- Suitable** : Use dry chemical powder.
- Not suitable** : Water. Carbon dioxide. Halogenated hydrocarbon.
- Special exposure hazards** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Special Remarks Fire/explosion hazards:

Metal. Fire risks Cover with dry earth, sand or other non-combustible material. If this is impossible, withdraw from area and allow fire to burn.

Aluminum fire may react with water to form hydrogen gas. Hydrogen gas is flammable and explosive.

When fighting a fire involving aluminum paste, DO NOT USE A WATER HOSE STREAM. DO NOT USE HALOGENATED EXTINGUISHING AGENTS. Aluminum particles suspended in air may form an explosive mixture; avoid any disturbance which could cause a dust cloud, such as directing water streams or gas propelled fire extinguishers into the burning material. Direct the Class B extinguishing agent, such as dry chemical, above the fire to rain down on the burning material. Care should be used when applying a Class B extinguishing agent because some agents can accelerate a fire where most of the solvent in the paste has been consumed and the aluminum flake has started to burn. If the extinguishing agent is carefully applied, it will be very evident if it accelerates the fire. If it does, or if the fire at some point has the appearance of metal burning with a bright, whitish glow, do not attempt to extinguish it. Isolate the fire by ringing it with dry, inert granular material, or Class D extinguishing agent then let it alone. Allow the material to become cold prior to disposal, because if the metal has ignited, it may continue to burn under a crust without flames.

6 . Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Small spill** : Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

6 . Accidental release measures

- Large spill** : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7 . Handling and storage

- Handling** : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8 . Exposure controls/personal protection

Ingredient	Exposure limits
Aluminum	<p>OSHA PEL 1989 (United States, 3/1989). TWA: 15 mg/m³, (as Al) 8 hour(s). Form: Dust TWA: 5 mg/m³, (as Al) 8 hour(s). Form: Pyrophoric TWA: 5 mg/m³, (as Al) 8 hour(s). Form: Respirable fraction TWA: 5 mg/m³, (as Al) 8 hour(s). Form: Welding fume</p> <p>NIOSH REL (United States, 6/2009). TWA: 5 mg/m³ 10 hour(s). Form: Respirable fraction TWA: 10 mg/m³ 10 hour(s). Form: Total</p> <p>OSHA PEL (United States, 6/2010). TWA: 5 mg/m³, (as Al) 8 hour(s). Form: Respirable fraction TWA: 15 mg/m³, (as Al) 8 hour(s). Form: Total dust</p> <p>ACGIH TLV (United States, 2/2010). TWA: 1 mg/m³ 8 hour(s). Form: Respirable fraction</p>
Solvent naphtha (petroleum), light arom.	(United States). Notes: Manufacturer Recommendations Occupational exposure limits TWA: 150 mg/m ³ 8 hour(s). Form: Vapor
Stoddard Solvent	<p>ACGIH (United States). TWA: 500 ppm 8 hour(s).</p> <p>OSHA (United States). TWA: 500 ppm 8 hour(s).</p> <p>ACGIH TLV (United States, 2/2010). TWA: 100 ppm 8 hour(s). TWA: 525 mg/m³ 8 hour(s).</p> <p>OSHA PEL 1989 (United States, 3/1989). TWA: 100 ppm 8 hour(s). TWA: 525 mg/m³ 8 hour(s).</p> <p>NIOSH REL (United States, 6/2009). TWA: 350 mg/m³ 10 hour(s). CEIL: 1800 mg/m³ 15 minute(s).</p> <p>OSHA PEL (United States, 6/2010). TWA: 500 ppm 8 hour(s). TWA: 2900 mg/m³ 8 hour(s).</p>

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

8 . Exposure controls/personal protection

Engineering measures	: No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Personal protection	
Respiratory	: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Hands	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Eyes	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.
Skin	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9 . Physical and chemical properties

Physical state	: Solid. [Paste.]
Flash point	: Closed cup: 42 °C (107.6 °F)
Auto-ignition temperature	: 230 °C (446 °F)
Color	: Silvery.
Odor	: low [Slight]
Relative density	: 1.46
Dispersibility properties	: Dispersible in the following materials: n-octanol and acetone. Very slightly dispersible in the following materials: methanol. Not dispersible in the following materials: cold water and hot water.
Solubility	: Very slightly soluble in the following materials: methanol, n-octanol and acetone. Insoluble in the following materials: cold water and hot water.

10 . Stability and reactivity

Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: acids halogenated hydrocarbons Oxidizers strong alkalis
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

10 . Stability and reactivity

Conditions of reactivity : Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge.
 Flammable in the presence of the following materials or conditions: heat.
 Reactive or incompatible with the following materials: oxidizing materials, acids and alkalis.

11 . Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Solvent naphtha (petroleum), light arom.	LD50 Oral	Rat	8400 mg/kg	-

Conclusion/Summary : Not considered to be toxic to humans.

Chronic toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Solvent naphtha (petroleum), light arom.	Chronic LD50 Oral	Rat	3592 mg/kg	-
	Chronic LC50 Inhalation Vapor	Rat	>6193 mg/m ³	4 hours

12 . Ecological information




13 . Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.




Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14 . Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	1325	FLAMMABLE SOLID, ORGANIC, N.O.S. (Stoddard Solvent)	4.1	II		-
TDG Classification	1325	FLAMMABLE SOLID, ORGANIC, N.O.S. (Stoddard Solvent)	4.1	II		-
Mexico Classification	1325	FLAMMABLE SOLID, ORGANIC, N.O.S. (Stoddard Solvent)	4.1	II		-

14 . Transport information

ADR/RID Class	1325	FLAMMABLE SOLID, ORGANIC, N.O.S. (Stoddard Solvent)	4.1	II		Tunnel code (E)
IMDG Class	1325	FLAMMABLE SOLID, ORGANIC, N.O.S. (Stoddard Solvent)	4.1	II		-
IATA-DGR Class	1325	FLAMMABLE SOLID, ORGANIC, N.O.S. (Stoddard Solvent)	4.1	II		-

PG* : Packing group

Tariff Code: Not available.

15 . Regulatory information

HCS Classification : Target organ effects

U.S. Federal regulations : TSCA 8(a) IUR Exempt/Partial exemption: Not determined

United States inventory (TSCA 8b): All components are listed or exempted.

SARA 302/304/311/312 hazardous chemicals: Aluminum; Stoddard Solvent

SARA 311/312 MSDS distribution - chemical inventory - hazard identification:

Aluminum: Fire hazard, reactive; Solvent naphtha (petroleum), light arom.: Fire hazard;
Stoddard Solvent: Fire hazard, Immediate (acute) health hazard

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Not listed

SARA 313

Supplier notification : Aluminum 7429-90-5 63 - 65

Remark : 1,2,4 Trimethylbenzene (as 3-4% of Stoddard Solvent). Aluminum (fume/dust). 1,2,4 Trimethylbenzene (as 20-40% of Aromatic Solvent). Cumene (as 1-3% of Aromatic Solvent). Ethylbenzene (as 0.5% of Aromatic Solvent).

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State regulations

Massachusetts Substances The following components are listed:
ALUMINUM; STODDARD SOLVENTNew Jersey Hazardous Substances The following components are listed:
ALUMINUM; STODDARD SOLVENTPennsylvania RTK Hazardous Substances The following components are listed:
Aluminum; STODDARD SOLVENT

United States inventory (TSCA 8b) : All components are listed or exempted.

Europe inventory : All components are listed or exempted.

Canada inventory : All components are listed or exempted.

International regulations

International lists :

- Australia inventory (AICS):** All components are listed or exempted.
- China inventory (IECSC):** All components are listed or exempted.
- Japan inventory:** All components are listed or exempted.
- Korea inventory:** All components are listed or exempted.
- New Zealand Inventory of Chemicals (NZIoC):** All components are listed or exempted.
- Philippines inventory (PICCS):** All components are listed or exempted.

16 . Other information

Label requirements : CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.

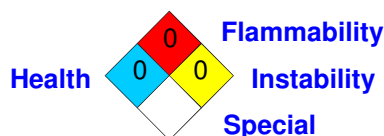
**Hazardous Material
Information System (U.S.A.)** :

Health	*	2
Flammability		2
Physical hazards		1

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

**National Fire Protection
Association (U.S.A.)** :



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Indicates information that has changed from previously issued version.

Notice to reader

The information provided is based upon data furnished by our suppliers and data determined by us in our facilities at the time this product was formulated. While believed to be reliable, the information and products are intended for use by skilled persons at their own risk. Users should make their own investigation to determine suitability of the information or products for their own particular purposes. Seller assumes no responsibility to Buyer for events resulting or damages incurred from their use.

The Hazardous Materials Identification System (HMIS) has been included by Silberline Manufacturing Co., Inc. in order to provide additional health and hazard classification information. The ratings recommended are based upon the criteria supplied by the developer of this rating system and suppliers of Silberline's raw materials, together with Silberline's interpretation of the available data.