

**SAFETY DATA SHEET****SECTION 1 : IDENTIFICATION****Product Identifier :**

Silver Plated Aluminum Particle Filled Silicone Adhesive

**Product Code(s) :**

Series 050

**Product Use :**

Conductive Gasket Seal

**Chemical Family :**

Mixture

**Supplier's Name and Address :**Nolato Jabar LLC  
PO Box 1249  
252 Brighton Road  
Andover, NJ, USA  
07821**Manufacturer's Name and Address :**

Refer to Supplier

**Information Telephone # :**

(973) 786-5000

**24 Hr. Emergency Tel # :**

(973) 786-5000

**SECTION 2 : HAZARDS IDENTIFICATION****Classification of the product**

WHMIS Classification

Class D2B (Materials Causing Other Toxic Effects, Toxic Material)

OSHA

This material is classified as hazardous under OSHA regulations (29 CFR 1910.1200)

Acute Health Hazard

Chronic Health Hazard

**Emergency Overview**

Tan Paste. Odorless.

Caution! May cause eye and skin irritation. May be harmful if inhaled. May cause respiratory irritation. Could result in pulmonary edema (fluid accumulation). May be harmful or fatal if swallowed. May cause gastrointestinal irritation. This material is a potential aspiration hazard.

**POTENTIAL HEALTH EFFECTS :****Signs and symptoms of short-term (acute) exposure**

Skin

May cause mild to moderate irritation. Symptoms may include redness, itching, and swelling.

Eyes

May cause mild to moderate irritation. Avoid heating, which will result in the liberation of formaldehyde gas. Formaldehyde gas causes moderate to severe eye irritation.

Ingestion

May cause irritation to mucous membrane. May cause nausea, vomiting, and diarrhea. Aspiration into the lungs during swallow may cause chemical pneumonitis, which can be fatal.

Inhalation

Vapours in high concentration may cause irritation of respiratory system. Avoid heating, which will result in the liberation of formaldehyde gas. Formaldehyde causes severe respiratory irritation, lung inflammation, and pulmonary edema.

**Effects of long-term (chronic) exposure**

Prolonged skin contact may cause dermatitis.

**Hazard Pictogram(s)****Hazard Statement(s)**

H315 - May cause skin irritation.

H317 - May cause an allergic skin reaction.

H319 - May cause eye irritation.

H335 - May cause respiratory irritation.

H411 - Toxic to aquatic life with long lasting effects.

**Precautionary Statement(s)**

- P201 - Obtain special instructions before use.
- P280 + 281 - Wear protective clothing and equipment.
- P308 + P313 - If exposed or concerned: Get medical advice/attention.
- P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention.
- P362 + P364 - Take off contaminated clothing and wash it before reuse.
- P501 - Dispose of contents/container in accordance with local regulation.

**Carcinogenic status :** See TOXICOLOGICAL INFORMATION, Section 11.

**Additional health hazards :** See TOXICOLOGICAL INFORMATION, Section 11.

**Potential environmental effects :** See ECOLOGICAL INFORMATION, Section 12.

**SECTION 3 : COMPOSITION / INFORMATION ON INGREDIENTS**

Ingredients	CAS #	Wt %
Naphtha, petroleum	8030-30-6	3-7
Methyltrimethoxysilane	1185-55-3	1-5
Silver	7440-22-4	23.2
Aluminum	7429-90-5	50.1

**SECTION 4 : FIRST AID MEASURES****First Aid : Eyes**

In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**First Aid : Skin**

Remove/Take off all contaminated clothing immediately. Wash off immediately with soap and plenty of water. When symptoms persist or in all cases of doubt seek medical advice. Wash contaminated clothing before re-use.

**First Aid : Ingestion**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Seek immediate medical attention/advice. If vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration.

**First Aid : Inhalation**

If breathed in, move person into fresh air. If breathing is irregular or stopped, administer artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. When symptoms persist or in all cases of doubt seek medical advice.

**Notes For Physician :**

Treat Symptomatically

**SECTION 5 : FIRE FIGHTING MEASURES****Fire Hazards/Conditions of Flammability**

Not flammable under normal conditions of use. However, may ignite if exposed to extreme heat and flame. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure

**Flammability Classification (OSHA 29 CFR 1910.1200)**

Combustible Liquid Class III B

**Oxidizing Properties**

None Known

**Explosion Data; Sensitivity to Mechanical Impact/Static Discharge**

Avoid dust cloud formation. Finely divided dust clouds may be sensitive to static discharge and pose a dust explosion hazard. Not expected to be sensitive to mechanical impact.

**Suitable Extinguishing Media**

Use media suitable to the surrounding fire such as water fog or fine spray, alcohol foams, carbon dioxide and dry chemical.

**Special Fire-Fighting Procedures/Equipment**

Move containers from fire area if safe to do so. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

**Hazardous combustion products**

Carbon oxides; formaldehyde; metal oxides; silicon oxides; irritating fumes and smoke.

**SECTION 6 : ACCIDENTAL RELEASE MEASURES**

The following recommendations are established general accepted practices of containment, not specific to this material.

**Personal Precautions**

Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate protective equipment including self-contained breathing apparatus. Refer to Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.

**Environmental Precautions**

Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway of drinking supply.

**Spill Response/Cleanup**

Remove all sources of ignition. Ventilate area of release. Stop the spill at source if it is safe to do so. Do not flush into surface water or sanitary sewer system. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see Section 13). Avoid dust formation. Contaminated absorbent material may pose the same hazards as the spilled product. Notify the appropriate authorities as required.

**Prohibited Materials**

None known.

**Special Spill Response Procedures**

If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8002).  
 US CERCLA Reportable quantity (RQ): silver (with particle size of less than 100 micrometers)  
 (1000 lbs / 454 kg)

**SECTION 7 : HANDLING AND STORAGE**

**Safe Handling Procedures**

Use only in well-ventilated areas. Wear suitable gloves and eye/face protection. Avoid dust formation. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin, eyes and clothing. Keep away from heat. Protect from moisture. Keep container tightly closed. Empty containers retain residue (liquid and/or vapour) and can be dangerous. Wash thoroughly after handling.

**Storage Requirements**

Keep containers tightly closed in a cool, well ventilated place. Keep away from heat. Inspect periodically for damage or leaks. Protect against physical damage. Keep containers dry and tightly closed to avoid moisture absorption and contamination.

**Incompatible Materials**

Oxidizing agents, strong acids, ammonia, peroxides.

**Special Packing Materials**

Always keep in containers made of the same materials as the supply container.

**SECTION 8 : EXPOSURE CONTROLS AND PERSONAL PROTECTION**

**Exposure Limits**

Ingredients	ACGIH TLV		OSHA PEL	
	TWA	STEL	PEL	STEL
Silver Coated Metal	0.1 mg/m <sup>3</sup> (dust and fume)	N/Av	0.01 mg/m <sup>3</sup>	N/Av
Trimethylated Silica	N/Av	N/Av	N/Av	N/Av
Naphtha, petroleum, hydrotreated, heavy	N/Av	N/Av	N/Av	N/Av
Methyltrimethoxysilane	N/Av	N/Av	N/Av	N/Av
Possible decomposition products in case of hydrolysis are: Methanol	200 ppm	250 ppm	200 ppm ; 260 mg/m <sup>3</sup>	N/Av
The following ingredient is released from the product only when heated above 150°C: Formaldehyde	N/Av	N/Av	0.75 ppm	2 ppm (see 29 CFR 1910.1048)

**Ventilation and Engineering Measures**

Use only in well-ventilated areas. Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. In case of insufficient ventilation, wear suitable respiratory equipment.

**Respiratory Protection**

In the case of vapour formation use a respirator with an approved filter. The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, a self-contained breathing apparatus must be used.

**Skin Protection**

Impervious gloves must be worn when using this product. Advice should be sought from glove suppliers.

**Eye/Face Protection**

Chemical safety glasses with side shields or splash proof goggles.

**Other Protective Equipment**

Chemical resistant apron. Safety boots per regulations. Ensure that eyewash stations and safety showers are close to the workstation location.

**General Hygiene Considerations**

Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use.

**SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES**

Physical State	: Paste	Appearance	: Paste
Odour	: Odorless	Odour Threshold	: N/Av
Physical State	: N/Av	Specific Gravity	: > 1.0
Boiling Point:	: N/Av	Coefficient of Water/Oil Distribution	: N/Av
Melting/Freezing Point	: N/Av	Solubility in Water	: Insoluble
Vapour Pressure (mmHg@20°C/68°F)	: N/Av	Evaporation Rate (n-Butyl acetate = 1)	: N/Av
Vapour Density (Air=1)	: N/Av	Volatiles (% by weight)	: N/Av
Volatile Organic Compounds (VOC's)	: N/Av	Auto-ignition Temperature	: N/Av
Flash Point	: N/Av	Upper Flammable Limit (% by vol)	: N/Av
Flash Point Method	: N/Av	Flashback Observed	: N/Av
Lower Flammable Limit (% by vol.)	: N/Av		
Flame Projection Length	: N/Av		

**SECTION 10 : STABILITY AND REACTIVITY**

**Chemical Stability**

Stable under normal conditions. May slowly hydrolyze in the presence of water to Methanol. When heated above 150°C in air, may release formaldehyde gas.

**Hazardous Reaction Potential**

Will not occur.

**Conditions to Avoid**

Direct sources of heat.

**Materials to Avoid and Incompatibility**

Incompatible materials (see Section 7).

**Hazardous Decomposition Products**

None known, refer to hazardous combustion products in Section 5.

**SECTION 11 : TOXICOLOGICAL INFORMATION**

**Target organs**

Eyes, skin, respiratory system and digestive system.

**Routes of Exposure**

Inhalation: YES Skin Absorption: No Skin & Eyes: YES Ingestion: YES

**Toxicological Data**

There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data. Methanol and Formaldehyde are not intentionally added to this product.

Ingredients	LC50(4hr)	LD50	
	inh, rat	(Oral, rat)	(Rabbit, dermal)
Silver Metal	N/Av	>2000 mg/kg	N/Av
Trimethylated Silica	N/Av	N/Av	N/Av
Naphtha, petroleum, hydrotreated heavy	N/Av	N/Av	N/Av
Methyltrimethoxysilane	N/Av	12300 µL/kg	N/Av
Possible decomposition products in case of hydrolysis are: Methanol	64000ppm/4H	5628 mg/kg	15800 mg/kg
The following ingredient is released from the product only when heated above 150°C: Formaldehyde	287 ppm	800 mg/kg	300 mg/kg

**Carcinogenic Status**

Avoid heating, which will result in the liberation of carbon monoxide.

**Reproductive Effects**

Contains no ingredient listed as toxic to reproduction.

**Teratogenicity**

May slowly hydrolyze in the presence of water to Methanol.  
Methanol has been shown to produce fetotoxicity in the embryo or fetus in laboratory animals.

**Mutagenicity**

Contains no ingredient listed as a mutagen.

**Epidemiology**

Not available.

**Sensitization to Material**

Some fabrication processes may cause sensitization by skin contact.  
Avoid heating which will result in the liberation of formaldehyde gas.

**Synergistic Materials**

Not available.

**Irritancy**

May cause eye, skin and respiratory tract irritation.

**Conditions Aggravated by Overexposure**

Pre-existing skin, eye and respiratory disorders.

**SECTION 12 : ECOLOGICAL INFORMATION**

**Ecotoxicity :**

No data is available on the product itself. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.

**Mobility :**

The product itself has not been tested.

**Persistence :**

The product itself has not been tested.

**Bioaccumulation Potential :**

The product itself has not been tested.

**Other Adverse Environmental Effects :**

None known.

**SECTION 13 : DISPOSAL CONSIDERATIONS**

**Handling for Disposal :**

Handle waste according to recommendations in Section 7.

**Methods of Disposal :**

Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.

**RCRA :**

If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies. Contains silver a, RCRA Hazardous waste number D011

**SECTION 14 : TRANSPORT INFORMATION**

Regulatory Information	UN Number	Shipping Name	Class	Packing Group	Label
49CFR/DOT	None	Not Regulated	Not Regulated	None	☒
49CFR/DOT Additional information	None	Not Regulated	Not Regulated	None	
TDG	None	Not Regulated	Not Regulated	None	☒
TDG Additional Information	None	Not Regulated	Not Regulated	None	

**SECTION 15 : REGULATORY INFORMATION**

**US Federal Information :**

TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.  
CERCLA Reportable Quantity (RQ) (40 CFR 117.302): See Section 6 SARA TITLE III: Sec. 302, Extremely Hazardous Substances, 40 CFR 355: No Extremely Hazardous Substances are present in this material.  
SARA TITLE III: Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: Immediate (Acute) health hazard; Chronic Health Hazard. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.  
SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This product may be subject to SARA notification requirements, since it contains Toxic Chemical constituents above their de minimus concentrations. This product contains: Silver.

**US State Right to Know Laws :**

California Proposition 65: To the best of our knowledge, this product does not contain any chemicals known to the State of California to cause cancer or reproductive harm.

**International Information :**

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

**WHMIS information :**

This product has been classified according to the hazard criteria of the CPR and the SDS contains all of the information required by the CPR.

**SECTION 16 : OTHER INFORMATION****HMIS Rating**

\* - Chronic Hazard 0 - Minimal 1 - Slight 2 - Moderate 3 - Serious 4 - Severe

Health : \*1

Flammability : 1

Reactivity : 0

**Legend :**

ACGIH: American Conference of Governmental Industrial Hygienists  
CA: California  
CAS: Chemical Abstract Services  
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980  
CFR: Code of Federal Regulations  
DOT: Department of Transportation  
EPA: Environmental Protection Agency  
HMIS: Hazardous Materials Identification System  
HSDB: Hazardous Substances Data Bank  
IARC: International Agency for Research on Cancer  
Inh: Inhalation  
N/Ap: Not Applicable  
N/Av: Not Available  
NFPA: National Fire Protection Association  
NIOSH: National Institute of Occupational Safety and Health  
NTP: National Toxicology Program

**SDS Preparation Data (dd/mm/yyyy) : 05/11/2015**

OSHA: Occupational Safety and Health Administration  
PEL: Permissible Exposure Limit  
RCRA: Resource Conservation and Recovery Act  
RTECS: Registry of Toxic Effects of Chemical Substances  
SARA: Superfund Amendments and Reauthorization Act  
STEL: Short Term Exposure Limit  
TDG: Canadian Transportation of Dangerous Goods Act & Regulations  
TLV: Threshold Limit Values  
TPQ: Threshold Planning Quantity  
TSCA: Toxic Substance Control Act  
TWA: Time Weighted Average  
WHMIS: Workplace Hazardous Materials Identification System

**References :**

1. ACGIH, Threshold Limit Values and Biological Exposure Indices
2. International Agency for Research on Cancer Monographs, searched
3. Canadian Centre for Occupational Health and Safety, CInfoWeb databases, 2009 (Chempendium, HSDB and RTECs)
4. Safety Data Sheets from manufacturer
5. US EPA Title III List of Lists
6. California Proposition 65 List

**Prepared for :**

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