



SAFETY DATA SHEET

MATERION

1. Product and company identification

Name of the chemical SISPA 10 w% 3N 300 x 108 x 25mm (Nut) Mono

Other means of identification
SDS number G27

Recommended use of the chemical and restrictions on use
Recommended use Manufacture of computer, electronic and optical products, electrical equipment
Scientific research and development
Other: Manufacture of medical and defense equipment
Recommended restrictions Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
Consumer uses: Private households (= general public = consumers)

**Manufacturer/Importer/Supplier/
Distributor information** Materion Advanced Materials
Address 6070 Parkland Boulevard
Mayfield Heights OH 44124
United States
Telephone EH&S 1.216.383.4019
E-mail ehs@materion.com
Contact person Theodore Knudson
**Emergency telephone
number** See Section 16.

2. Hazards identification

Hazard classification
Physical hazards Not classified.
Health hazards Not classified.
Environmental hazards Not classified.

Label elements
Symbols None.
Signal word None.

Hazard statement The material as sold in solid form is generally not considered hazardous. However, if the process involves grinding, melting, cutting or any other process that causes a release of dust or fumes, hazardous levels of airborne particulate could be generated.

Precautionary statement
Prevention Observe good industrial hygiene practices.
Response Wash hands after handling.
Storage Store away from incompatible materials.
Disposal Dispose of waste and residues in accordance with local authority requirements.

Other hazards None known.

Supplemental information For further information, please contact the Product Stewardship Department at +1.216.383.4019.

3. Composition/information on ingredients

Mixture

Chemical properties	CAS Number	Concentration (%)
Silicon	7440-21-3	80 - 90
Aluminum	7429-90-5	10 - 20

4. First aid measures

First aid measures for different exposure routes

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact	Wash off immediately with plenty of water. Get medical attention if irritation develops and persists.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention if irritation develops and persists.
Ingestion	Drink plenty of water.
Most important symptoms and effects	None known.
Personal protection for first-aid responders	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
Notes to physician	Treat symptomatically.

5. Fire-fighting measures

Extinguishing media	Powder. Dry sand. Dry chemical or CO2.
Extinguishing media to avoid	Water.
Specific hazards during fire fighting	This product is not flammable.
Special fire fighting procedures	Move containers from fire area if you can do so without risk.
Protection of fire-fighters	Wear suitable protective equipment.
General fire hazards	No unusual fire or explosion hazards noted.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.

6. Accidental release measures

Personal precautions	In solid form this material poses no special clean-up problems. For personal protection, see section 8 of the SDS.
Environmental precautions	Collect spillage.
Spill cleanup methods	Clean up in accordance with all applicable regulations. Pick up and arrange disposal without creating dust.

7. Handling and storage

Handling	Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Storage	Store in a dry place.

8. Exposure controls/personal protection

Exposure limits

OELs. (Standards on Workplace Atmosphere of Dangerous and Hazardous Materials)

Components	Type	Value	Form
Aluminum (CAS 7429-90-5)	STEL	15 mg/m3	Total dust.
		10 mg/m3	Respirable dust.
	TWA	5 mg/m3	Respirable dust.
		10 mg/m3	Total dust.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Aluminum (CAS 7429-90-5)	TWA	1 mg/m3	Respirable fraction.

Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
Individual protection measures, such as personal protective equipment	
Eye/face protection	If contact is likely, safety glasses with side shields are recommended.
Skin protection	
Hand protection	Wear protective gloves.
Other	Wear suitable protective equipment.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards	None known.

General hygiene considerations Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking.

9. Physical and chemical properties

Appearance

Physical state Solid.
Form Solid.
Color Dark grey.

Odor None.

Odor threshold Not applicable.

Melting point/freezing point 1220 °F (660 °C) estimated / Not applicable.

pH Not applicable.

Boiling point, initial boiling point, and boiling range Not applicable.

Flammability (solid, gas) None known.

Flash point Not applicable.

Decomposition temperature Not applicable.

Auto-ignition temperature Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not applicable.

Flammability limit - lower (%) temperature Not applicable.

Flammability limit - upper (%) Not applicable.

Flammability limit - upper (%) temperature Not applicable.

Explosive limit - lower (%) Not applicable.

Explosive limit - lower (%) temperature Not applicable.

Explosive limit - upper (%) Not applicable.

Explosive limit - upper (%) temperature Not applicable.

Vapor pressure Not applicable.

Vapor density Not applicable.

Density 2.40 g/cm³ estimated

Solubility(ies)

Solubility (water) Insoluble.

Partition coefficient (n-octanol/water) Not applicable.

Evaporation rate Not applicable.

Other data

Explosive properties Not explosive.

Oxidizing properties Not oxidizing.

Viscosity Not applicable.

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Stability Material is stable under normal conditions.

Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.

Conditions to avoid None under normal conditions.

Incompatible materials None known.

Hazardous decomposition products No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation Not likely, due to the form of the product.
Skin contact Not relevant, due to the form of the product.
Eye contact Not relevant, due to the form of the product.
Ingestion Expected to be a low ingestion hazard.

Symptoms None known.

Information on toxicological effects

Acute toxicity None known.

Skin corrosion/irritation Not relevant, due to the form of the product.

Serious eye damage/eye irritation Not likely, due to the form of the product.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization Not a skin sensitizer.

Germ cell mutagenicity Not classified.

Carcinogenicity Not classifiable as to carcinogenicity to humans.

ACGIH Carcinogens

Aluminum (CAS 7429-90-5) A4 Not classifiable as a human carcinogen.

Reproductive toxicity Not classified.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects None known.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous.

Product	Species	Test Results
SISPA 10 w% 3N 300 x 108 x 25mm (Nut) Mono		
Aquatic		
<i>Acute</i>		
Fish	LC50	Fish 1.55 mg/l, 96 hours estimated

Persistence and degradability

Bioaccumulation No data available.

Mobility in soil No data available for this product.

Other hazardous effects Not available.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Residual waste Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Local disposal regulations Dispose in accordance with all applicable regulations.

14. Transport information

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

Applicable regulations Methods and Facilities Standards for the Storage, Clearance and Disposal of Industrial Waste
Regulations for the Labeling and Hazard Communication of Hazardous Chemicals
Toxic Chemical Substances Control Act
Toxic Chemical Substances Labeling and Materials Safety Data Sheets Regulations
This material safety data sheet was prepared in accordance with the Regulation of Labeling and Hazard Communication of Hazardous Chemicals.

Methods and Facilities Standards for the Storage, Clearance and Disposal of Industrial Waste

Not listed.

Priority Management Chemical List (Regulations on Handling Priority Managed Chemicals), as amended

Not listed.

Toxic Chemical Substances (TCS) List (EPA Toxic Substances Notice No. 0960095331E, Tables 1-3, Dec. 17, 2007, as amended)

Not listed.

Standards on Workplace Atmosphere of Dangerous and Hazardous Materials

Aluminum (CAS 7429-90-5) Listed.

GHS Classification List: GHS implementation phase 1, 2 and 3 (CLA No. 0980145063, 0990146707, and 1020146801)

Aluminum (CAS 7429-90-5)

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Montreal Protocol

Not applicable.

Kyoto protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information

References

ACGIH
 EPA: ACQUIRE database
 NLM: Hazardous Substances Data Base
 US. IARC Monographs on Occupational Exposures to Chemical Agents
 Taiwan. Dangerous Materials (Rules on Hazard Communication of Dangerous Materials and Toxic Materials)
 Taiwan. Industrial Precursor Chemicals (Categories and Regulations Governing Inspection and Declaration of Industrial Precursor Chemicals, MOEA Decree No. 87, as amended)
 Taiwan. OELs. (Standards on Workplace Atmosphere of Dangerous and Hazardous Materials)
 Taiwan. Toxic Chemical Substances (TCS) (List of Toxic Chemical Substances announced by the Environmental Protection Administration)
 Taiwan. Toxic Materials (Rules on Hazard Communication of Dangerous Materials and Toxic Materials)

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Prepared by

Not available.