



Material Safety Data Sheet

Prepared in accordance with ISO 11014-1/ANSI standard Z400.1-2004

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1. PRODUCT AND COMPANY IDENTIFICATION

Product code SIPM504
Product name Aluminum Paste L-228
Product description Metallic Powder or Paste

Manufacturer or supplier's details

UNITED STATES
Nazdar Company
8501 Hedge Lane Terrace
Shawnee, KS 66227
Tel: 1-913-422-1888
Tel: 1-800-677-4657
Fax: 1-913-422-2294

UNITED KINGDOM
Nazdar Limited
7 Barton Road
Heaton Mersey Industrial Estate
Stockport, Chesire SK4 3EG
Tel: +44 161 442 2111

Emergency Telephone Number

USA: Chemtrec: 1-800-424-9300
Outside USA: Chemtrec: 1-703-527-3887

Website: www.nazdar.com
MSDS Information: 1-913-422-1888 ext 2305
MSDS Contact: Regulatory Compliance
email: regcomp@nazdar.com

2. HAZARDS IDENTIFICATION

This product is a preparation. Health hazard information is based on its components.

Appearance Silver
Emergency Overview Water reactive. Flammable solid. Irritant.
Eyes Irritating to eyes.
Skin Irritating to skin.
Inhalation Irritating to respiratory system.
Ingestion Ingestion may cause irritation to mucous membranes.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %
Aluminum	7429-90-5	60 - 100
Stoddard solvent	8052-41-3	10 - 30
Petroleum naphtha, light aromatic	64742-95-6	10 - 30
1,2,4-Trimethylbenzene (contaminant)	95-63-6	10 - 30

- Component names which have the word (contaminant) are constituents contained in Aromatic Hydrocarbon ingredients and are an integral part of the ingredient and cannot be separated. The percentage listed for the contaminant is as contained in the Hydrocarbon ingredient. (Example: 100% Hydrocarbon, 10% Contaminant A, 3% Contaminant B)

4. FIRST AID MEASURES

Skin Contact Wash off immediately with soap and plenty of water. Use a mild soap if available. Rinse immediately with plenty of water for at least 15 minutes. Remove contaminated clothing. If irritation develops, get medical attention.

Eye Contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention immediately if irritation develops and persists.

Inhalation Move to fresh air. If breathed in, move person into fresh air. If breathing is irregular or stopped, administer artificial respiration. Get medical attention immediately.

Ingestion Never give anything by mouth to an unconscious person. If swallowed, DO NOT induce vomiting. Call a physician or Poison Control Centre immediately.

5. FIRE-FIGHTING MEASURES

Flammable Properties	No information available
Suitable Extinguishing Media	Dousing metallic fires with water may generate hydrogen gas, an extremely dangerous explosion hazard, particularly if fire is in a confined environment (i.e., building, cargo hold, etc.).
Protective Equipment and Precautions for Firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear
Specific Hazards Arising from the Chemical	Preparation reacts slowly with water resulting in evolution of hydrogen.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Remove all sources of ignition. Heat, flames and sparks. Ventilate the area. Avoid breathing dust or vapor. Avoid contact with skin, eyes and clothing. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
Methods for Cleaning Up	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). Do not use sparking tools.
Environmental Precautions	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

7. HANDLING AND STORAGE

Handling	Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Component	Weight %	ACGIH TLV	OSHA PEL	Ontario TWA EV
Aluminum	60 - 100	TWA: 1 mg/m ³	TWA: 5 mg/m ³ TWA: 15 mg/m ³	TWA: 10 mg/m ³ TWA: 5 mg/m ³
Stoddard solvent	10 - 30	TWA: 100 ppm	TWA: 100 ppm TWA: 525 mg/m ³ TWA: 2900 mg/m ³ TWA: 500 ppm	TWA: 525 mg/m ³
1,2,4-Trimethylbenzene (contaminant)	10 - 30	TWA: 25 ppm		TWA: 25 ppm TWA: 123 mg/m ³

Component	Weight %	NIOSH IDLH	Mexico OEL (TWA)
Aluminum	60 - 100		TWA: 10 mg/m ³ TWA: 5 mg/m ³
Stoddard solvent	10 - 30	20000 mg/m ³	TWA: 523 mg/m ³ TWA: 100 ppm STEL: 200 ppm STEL: 1050 mg/m ³
1,2,4-Trimethylbenzene (contaminant)	10 - 30		TWA: 125 mg/m ³ TWA: 25 ppm STEL: 35 ppm STEL: 170 mg/m ³

NIOSH IDLH: Immediately Dangerous to Life or Health

Engineering Measures

Use only with adequate ventilation. Use ventilation adequate to keep exposures below recommended exposure limits. See MSDS. In case of insufficient ventilation, wear suitable respiratory equipment.

Personal Protective Equipment**Respiratory Protection**

Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust). Respirator with a vapour filter.

Eye Protection

Ensure that eyewash stations and safety showers are close to the workstation location. Avoid contact with eyes. Safety glasses with side-shields. Goggles. Face-shield.

Skin Protection

Wear protective gloves/clothing. Solvent-resistant apron and boots.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice. Ensure that eyewash stations and safety showers are close to the workstation location. Wash hands before eating, drinking, or smoking. Remove and wash contaminated clothing before re-use. Regular cleaning of equipment, work area and clothing. Avoid contact with skin, eyes and clothing. Wear suitable gloves and eye/face protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Silver	Physical State	Paste
Odor	Aromatic	Odor Threshold	No information available
pH	No information available	Autoignition Temperature	No information available
Boiling point/Boiling Range	No information available	Melting Point/Range	No information available
Freezing Point/Range	No information available	Solubility	No information available
Evaporation Rate	No information available	Partition Coefficient (n-octanol/water)	No information available
Vapour Pressure	No information available	Vapour Density	No information available
Flammability (solid, gas)	No information available		
Flammability Limits in Air		Flash Point	42°C / 108°F
Upper	No information available	Method	Setaflash closed cup
Lower	No information available	Photochemically Reactive	Yes
Weight Per Gallon (lbs/gal)	13.339	Specific Gravity	1.6
VOC by weight	35	VOC by volume	67.798
VOC lbs/gal	4.673	VOC grams/liter	559.992

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions
Conditions to Avoid	Heat, flames and sparks
Incompatible Products	Water.
Hazardous Decomposition Products	None under normal use conditions
Possibility of Hazardous Reactions	None under normal processing

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Petroleum naphtha, light aromatic	8400 mg/kg (Rat)	2000 mg/kg (Rabbit)	5.2 mg/L (Rat) 4 h 3400 ppm (Rat) 4 h
1,2,4-Trimethylbenzene (contaminant)	3400 mg/kg (Rat) 8970 mg/kg (Rat)	3160 mg/kg (Rabbit)	18 g/m ³ (Rat) 4 h

Chronic Toxicity

Sensitisation	No information available
Mutagenic Effects	No information available
Reproductive Effects	No information available
Developmental Effects	No information available
Teratogenicity	No information available
Chronic Effects	No information available
Target Organ Effects	Blood, Central nervous system, Eyes, Kidney, Respiratory system, Skin.

12. ECOLOGICAL INFORMATION**Ecotoxicity**

We have no quantitative data concerning the ecological effects of this product. Should not be released into the environment.

Component	Freshwater Algae	Freshwater Fish	Water Flea
Petroleum naphtha, light aromatic		96 Hr LC50 Oncorhynchus mykiss: 9.22 mg/L	48 Hr EC50 Daphnia magna: 6.14 mg/L
1,2,4-Trimethylbenzene (contaminant)		96 Hr LC50 Pimephales promelas: 7.72 mg/L [flow-through]	48 Hr EC50 Daphnia magna: 6.14 mg/L

Persistence and Degradability	No information available
Bioaccumulation	No information available
Mobility in Environmental Media	No information available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods	Dispose of contents/container in accordance with local regulation.
Contaminated Packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION**DOT**

UN3089, Metal Powders, Flammable, NOS, 4.1, II

ICAO/IATA

UN3089, Metal Powders, Flammable, NOS, 4.1, II

IMDG/IMO

UN3089, Metal Powders, Flammable, NOS, 4.1, II

15. REGULATORY INFORMATION**International Inventories**

Listed on TSCA. For further information, please contact: Manufacturer, importer, supplier

U.S. Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Component	CAS-No	Weight %	SARA 313 - Threshold Values
Aluminum	7429-90-5	60 - 100	1.0
1,2,4-Trimethylbenzene (contaminant)	95-63-6	10 - 30	1.0

Aluminum is reportable under SARA313 ONLY if it is a fume or dust form. Fume or dust refers to dry forms but does not refer to "wet" forms such as use in a solution or slurry.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any HAPs.

U.S. State Regulations

California Prop. 65

WARNING! This product contains a chemical known in the State of California to cause cancer. WARNING! This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.

Component	CAS-No	Weight %
Ethyl benzene (contaminant)	100-41-4	< 0.1

State Right-to-Know

Component	Minnesota	Florida	New Jersey	Pennsylvania	Massachusetts	Rhode Island
Aluminum	Not Listed	Not Listed	X	X	X	X
Stoddard solvent	Not Listed	Not Listed	X	X	X	X
Petroleum naphtha, light aromatic	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
1,2,4-Trimethylbenzene (contaminant)	Not Listed	Not Listed	X	X	X	X

Canada

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

Component	WHMIS Classifications of Components
Aluminum	B6 (powder); Uncontrolled product according to WHMIS classification criteria
Stoddard solvent	B3, D2B
Petroleum naphtha, light aromatic	B3, D2B
1,2,4-Trimethylbenzene (contaminant)	B3

Component	NPRI - National Pollutant Release Inventory
Aluminum	Part 1, Group 1 Substance (dust or fume)
Stoddard solvent	Part 5 Substance
Petroleum naphtha, light aromatic	Part 5 Substance
1,2,4-Trimethylbenzene (contaminant)	Part 1, Group 1 Substance; Part 5 Substance Part 5 Substance (except 1,2,4-Trimethyl benzene) Part 4 Substance

REACH: Substances of Very High Concern (SVHC): Article 57 of Regulation (EC) No 1907/2006

Does NOT contain a listed substance

HMIS:	Health	Flammability	Reactivity	PPE
	2*	2	1	X

16. OTHER INFORMATION

Revision Date Apr-03-2009

Revision Summary New MSDS format

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of MSDS