

MATERIAL SAFETY DATA SHEET

SECTION I - PRODUCT IDENTIFICATION AND USE

Product Name: Sun METALLICS® Aluminum Pigment Paste

Manufacturer:

Emergency Telephone No: 0513-88789274

DIC (Nantong) Metallic Pigment Co., LTD

Add: NO.198, West Jianghai Rd., Hai'an Industry Zone, Nantong, Jiangsu, PRC

SECTION II - HAZARDOUS INGREDIENTS

HAZARDOUS INGREDIENTS	CAS NUMBER	% INGREDIENT	ACGIL (TLV)	FLASH PT	BOILING PT
Aluminum	7429-90-5	65-70	10mg/m3	NA	NA
Naphtha	8030-30-6	10-12	NA	>33C	140-200C
Naphtha Light Aromatic	64742-95-6	20-25	NA	>42C	161-171C

SECTION III - PHYSICAL DATA

<i>Form</i>	<i>Pasty</i>
<i>Color</i>	<i>Silver-colored</i>
<i>Odor</i>	<i>Characteristic</i>
<i>Boiling Range</i>	<i>140-200 °C</i>
<i>Flash Point</i>	<i>>33 °C</i>
<i>Ignition temperature</i>	<i>240 °C</i>
<i>Self-igniting</i>	<i>Product is not self-igniting</i>
<i>Danger of explosion</i>	<i>Product is not explosive. However, formation of explosive air/vapor mixtures are possible</i>
<i>Explosion limits</i>	<i>Lower: 0.6 Vol% Upper: 7.5%Vol%</i>
<i>Vapor pressure at 20 °C</i>	<i>5hPa</i>
<i>Density</i>	<i>1.3-2.0 g/cm³</i>
<i>Solubility in/ Miscibility with water</i>	<i>Insoluble</i>

SECTION IV - FIRE AND EXPLOSION DATA

Flammability: Combustible Paste, Avoid all sources of ignition.

Suitable extinguishing agents: special powder for metal fires. Do not use water. Use class "D", dry chemical extinguisher or other suitable extinguishing material such as dry sand.

For safety reasons unsuitable extinguishing agents: Water, Carbon dioxide

Protective equipment: Wear fully protective suit.

Hazardous combustion products: Hydrogen gas.

Sensitivity to impact: Not available

Sensitivity to static discharge: Yes, dust explosion

SECTION V - REACTIVITY DATA

Thermal decomposition / conditions to be avoided:

- *No decomposition if used according to specifications.*
- *No decomposition if used and stored according to specifications.*

Dangerous reactions

- *Reacts with acids, alkalis and oxidizing agents.*
- *Danger of explosion when dry.*
- *Reacts when heated with acids and alkalis releasing hydrogen.*

Dangerous decomposition products:

- *No dangerous decomposition products known.*

SECTION VI - TOXICOLOGICAL PROPERTIES

Route of Entry: Skin Contact, Eye Contact, Inhalation, Ingestion

Effects of Chronic Exposure to Product : None Known

Exposure Limits: Not Known

Sensitization to Products: Not Known

Carcinogenicity: Not listed by N.T.P.

Teratogenicity: Not Known

Reproductive Toxicity: Not Known

Mutagenicity: Not Known

Synergistic Products: Not Available

Primary irritant effect:

- **on the skin:** *No irritant effect.*
- **on the eye:** *No irritating effect.*
- **Sensitization:** *No sensitizing effects known.*

Additional toxicological information:

- *Inhalation of concentrated vapors as well as oral intake will lead to anesthesia-like conditions and headache, dizziness, etc.*

SECTION VII - PREVENTIVE MEASURES

Personal protective equipment:

General protective and hygienic measures:

- *Wash hands before breaks and at the end of work.*
- *Do not eat, drink, smoke or sniff while working.*
- *Keep away from foodstuffs, beverages and feed.*
- *Immediately remove all soiled and contaminated clothing*

Respiratory protection:

- *Suitable respiratory protective device recommended.*

Protection of hands:

- *Solvent resistant gloves*
- *Preventive skin protection by use of skin-protecting agents is recommended.*
- *Prior to contact with the water insoluble substance / product / preparation apply water soluble skin-protecting agent (fat-free film former or O/W-emulsions).*

Material of gloves

- *The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove*

material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

- *The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.*

Eye protection:

- *Safety glasses*

SECTION VIII – ACCIDENTAL RELEASE MEASURES

Person-related safety precautions:

- *Wear protective equipment. Keep unprotected persons away.*
- *Remove persons from danger area.*
- *Keep away from ignition sources.*
- *Avoid formation of dust.*

Measures for environmental protection:

- *Do not allow to enter sewers/ surface or ground water.*

Measures for cleaning/collecting:

- *Ensure adequate ventilation.*
- *Do not flush with water or aqueous cleansing agents*
- *Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).*

SECTION IX – HANDLING AND STORAGE MEASURES

Information for safe handling:

- *Keep receptacles tightly sealed.*
- *Store in cool, dry place in tightly closed receptacles.*
- *Keep away from heat and direct sunlight.*
- *Prevent formation of dust.*
- *Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).*

Information about fire - and explosion protection:

- *Keep ignition sources away - Do not smoke.*
- *Protect from heat.*
- *Protect against electrostatic charges.*

Requirements to be met by storerooms and receptacles:

- *Store in a cool location.*

Information about storage in one common storage facility:

- *Store away from flammable substances.*

Further information about storage conditions:

- *Store in cool, dry conditions in well sealed receptacles.*
- *Protect from humidity and water.*

SECTION X - FIRST AID MEASURES

General information:

- *Take affected persons out into the fresh air.*
- *Take affected persons out of danger area and lay down.*

After inhalation:

- *Supply fresh air; consult doctor in case of complaints.*

After skin contact:

- *Immediately wash with water and soap and rinse thoroughly.*
- *Generally the product does not irritate the skin.*

After eye contact:

- Rinse opened eye for several minutes under running water.

After swallowing:

- Do not induce vomiting; call for medical help immediately.

SECTION XI – DISPOSAL CONSIDERATIONS

Product:

- **Recommendation:** Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:

- **Recommendation:** Disposal must be made according to official regulations.

SECTION XII – TRANSPORTATION INFORMATION

Land transport ADR/RID (cross-border)

- **ADR/RID class:** 4.1 Flammable solids, self-reactive substances and solid desensitized explosives.
- **Danger code (Kemler):** 40
- **UN-Number:** 1325
- **Packaging group:** II
- **Hazard label 4.1**
- **Description of goods:** 1325 FLAMMABLE SOLID, ORGANIC, N.O.S. (aluminum pigment paste)

Maritime transport IMDG:

- **IMDG Class:** 4.1
- **UN Number:** 1325
- **Label 4.1**
- **Packaging group:** II
- **EMS Number:** F-G,S-G
- **Marine pollutant:** No
- **Proper shipping name:** FLAMMABLE SOLID, ORGANIC, N.O.S. (Aluminum pigment paste)

Air transport ICAO-TI and IATA-DGR:

- **ICAO/IATA Class:** 4.1
- **UN/ID Number:** 1325
- **Label 4.1**
- **Packaging group:** II
- **Proper shipping name:** FLAMMABLE SOLID, ORGANIC, N.O.S. (Aluminum pigment paste)

SECTION XIII – REGULATORY INFORMATION

Labeling according to US guidelines:

- The product has been classified and marked in accordance with US Directives, Ordinance on Hazardous Materials.

Code letter and hazard designation of product:



- Flammable

Risk phrases:

- *Highly flammable.*
- *Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.*
- *Repeated exposure may cause skin dryness or cracking.*
- *Vapors may cause drowsiness and dizziness.*

Safety phrases:

- *Keep container tightly closed and dry.*
- *In case of fire, use dry sand. Never use water.*