

SAFETY DATA SHEET

Randolph 701 Aluminum Paste

1 – IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY UNDERTAKING

PRODUCT NAME: **Randolph 701 Aluminum Paste**
 PRODUCT NUMBER: **701**
 SUPPLIER: Consolidated Aircraft Coatings
 P.O. Box 3129, Riverside, CA 92519, USA
 4343 Fort Drive, Riverside, CA 92509, USA
 (951) 684-4280
 (951) 809-7144
 (760) 782-1947
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 (703) 527-3887 (International – Call Collect)

Date Prepared: 02/05/2015
 By: Greg Albarian

2 - HAZARDS IDENTIFICATION

Highly flammable. Irritating to eyes and skin. Harmful: danger of serious damage to health by prolonged exposure through inhalation. Possible risk of harm to the unborn child. Harmful: may cause lung damage if swallowed. Vapors may cause drowsiness and dizziness.

CLASSIFICATION (1999/45) XN, N, F, R10, R15, R17

3 – COMPOSITION /INFORMATION ON INGREDIENTS

Name	EC No.	CAS No.	Content %	Classification (67/548/EEC)
Aluminum	231-072-3	7429-90-5	30-70%	F, R15, R17, S7/8, S43A
Stoddard Solvent	232-489-3	8052-41-3	30-70%	XN, N, R10, R51/53, R65, R66, S16, S23, S24, S36, S60, S62

The Full Text for all R-Phrases and S-Phrases is displayed in Section 15

COMPOSITION COMMENTS

The data shown are in accordance with the latest EC Directives.

4- FIRST AID MEASURES

NOTICE:

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE:

Irritating to eyes, skin, nose and throat. Headache, dizziness and nausea can result from inhalation. Repeated or prolonged skin contact may result in dryness possibly leading to dermatitis. Central nervous system effects including excitation, euphoria, contracted eye pupil dizziness, blurred vision, fatigue, nausea, headache, loss of consciousness, respiratory arrest and sudden death could occur of long term and/or high concentration exposures vapors.

SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE:

Contact with the skin or eyes may cause irritation. Prolonged or repeated contact can cause moderate irritation, defatting and/or dermatitis. Skin and eyes should be flushed with water for at least 15 minutes.

INGESTION HEALTH RISK AND SYMPTOMS OF EXPOSURE:

Toxic if ingested. If Methanol is listed in Sec. II, may be fatal or cause blindness if swallowed; cannot be made non-poisonous. If product contains Toluene or Sylene, may affect liver, kidneys or blood. If MEK is listed in Sec II, MEK has caused cancer in certain animal tests. Preexisting eye, skin, heart, central nervous system and respiratory disorders may be aggravated by exposure to this product.

HEALTH HAZARDS (ACUTE AND CHRONIC):

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents of this product may be harmful or fatal. Overexposure may cause anesthesia, headache, nausea or dizziness. Breathing the vapors may irritate the nose and throat. Detectable amounts of chemicals or substances known to the state of California to cause cancer, birth defects, or other reproductive harm may be found in this product. Use care when handling chemical and petroleum products even though they are water reducible.

CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE TO THIS PRODUCT:

Preexisting eye, skin, heart, central nervous system and respiratory disorders may be aggravated by exposure to this product.

EMERGENCY AND FIRST AID PROCEDURES:

Inhalation: Remove to fresh air. Restore breathing. Consult physician. If breathing stops give artificial respiration. Keep person warm.

Splash (Eye): Flush with water for at least 15 minutes. Consult physician.
 Splash (Skin): Wash affected area with soap and water. Remove contaminated clothing. Consult physician if irritation persists.
 Ingestion: Drink 1 or 2 glasses of water to dilute. Do NOT induce vomiting. If spontaneous vomiting occurs, keep head below hips to prevent aspiration of liquid into the lungs. Never give anything by mouth to an unconscious person. Vapors may irritate the nose and throat. Consult physician or poison control center immediately.

5- FIRE FIGHTING PROCEDURES

EXTINGUISHING MEDIA: Use Dry Chemical Powder. **DO NOT** use Water, Carbon dioxide or Halogenated hydrocarbon.
SPECIAL FIREFIGHTING PROCEDURES: Direct the Class B extinguishing agent above the fire to rain down on the burning material. Care should be taken when applying a Class B extinguishing agent, because some agents may 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 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 extinguisher 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 the crust without flames. Isolate from heat, sparks, electrical equipment and open flame. Do not use a direct stream of water. Product may float and can be reignited on the surface of the water. Do not enter a confined area without full bunker gear including a positive-pressure NIOSH-approved self-contained breathing apparatus. Decomposition products may form toxic materials such as Carbon dioxide, Carbon monoxide, metal oxide/oxides..
UNUSUAL FIRE AND EXPLOSION HAZARDS: Water spray may be used to cool closed containers to help prevent explosion when exposed to extreme heat. Never use welding or cutting torch on or near drum (even empty) because residue or product can ignite explosively. Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by pilot lights, flames and other ignition sources at locations distant from the material handling point. Flammable material.
SPECIAL REMARKS FIRE/EXPLOSION HAZARDS: Aluminum fire may react with water to form hydrogen gas. Hydrogen gas is flammable and explosive.

6-ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear protective clothing as described in Section 8.
ENVIRONMENTAL PRECAUTIONS: Spillages or uncontrolled discharges into watercourses must immediately be alerted to Environmental Agency or other appropriate regulatory authority.
SPILL CLEANUP METHODS: Keep combustibles away from spilled material. Extinguish all ignition sources. Avoid sparks, open flames, and smoking. Ventilate. Absorb in vermiculite, dry sand, or earth and place into containers for disposal.

7-HANDLING AND STORAGE

USAGE PRECAUTIONS: Keep away from heat, sparks and open flames. Avoid spilling, skin and eyes contact. Use with adequate ventilation and avoid excessive exposure to solvent vapors. Use approved respirator if air contamination exceeds the accepted level.
STORAGE PRECAUTIONS: FLAMMABLE/Combustible. Keep away from oxidizers, open flames and other ignition sources. Keep unused contents in original container and tightly closed lids. Store in a cool, dry and well-ventilated place and at an ambient Temperature not to exceeding above 120° F.
STORAGE CLASS: FLAMMABLE liquid storage.

8-EXPOSURE CONTROL/PERSONAL PROTECTION

Name	Workplace Exposure Limits	Remarks
Aluminum	ACGIH: 1 mg/m ³ (respirable fractions) NIOSH: 10 mg/m ³ TWA (total dust), 5 mg/m ³ TWA (respirable dust) OSHA-Final PELs: 15 mg/m ³ TWA (total dust), 5 mg/m ³ TWA (respirable fraction)	Consult local authorities for acceptable exposure limits.
Stoddard Solvent	ACGIH: 100 ppm TWA NIOSH: 350 mg/m ³ TWA 20000 mg/m ³ IDLH OSHA –Final PELs: 500 ppm TWA; 2900 mg/m ³ TWA	Same As Above

**PROTECTIVE EQUIPMENTS:****PROCESS CONDITIONS:****ENGINEERING MEASURES:****RESPIRATORY EQUIPMENT:****HANDPROTECTION:****EYE PROTECTION:****OTHER PROTECTION:****HYGIENE MEASURES:**

Provide eyewash station.

Provide adequate ventilation. Fully equipped spray booth is recommended to ensure the workers legal exposure limits are not exceeded.

Wear respirator with appropriate cartridge for organic solvents and chemicals.

Wear approved gloves such as Neoprene, Nitrile or Rubber types.

Wear splash-proof goggles.

Wear appropriate clothing to prevent any possible skin contact.

DO NOT SMOKE IN THE WORK AREA. Wash at the end of each work shift and before eating, drinking or smoking. Promptly remove contaminated clothing.

9- PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Liquid
COLOR:	Silver color.
ODOR:	Ketone characteristics
BOILING POINT:	310-396° F
RELATIVE DENSITY:	0.88 g/mL
VAPOR DENSITY:	Heavier than air
FLASH POINT:	108° F (43° C) (Closed Cup)
FLAMMABILITY LIMITS:	NA (Lower%)
SOLUBILITY VALUE (g/100g H ₂ O @ 20°C):	Insoluble
VOLATILE ORGANIC COMPOUND (VOC):	

10- STABILITY AND REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID: None reasonably foreseeable. Avoid contact with the materials listed under Section VI Incompatibility if product contains aluminum.

INCOMPATIBILITY (MATERIALS TO AVOID): (Metallics only).

Water, acids, caustics, chlorinated hydrocarbons and oxidizers. Some aluminum pigments can react with them to produce hydrogen and heat.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Will not occur.

HAZARDOUS POLYMERIZATION: N/A

11-TOXICOLOGICAL INFORMATION**Aluminum Powder (CAS#7429-90-5): RTECS#:****CAS#** 7429-90-5: BD0330000; BD1020000**Epidemiology:** No information available. **Teratogenicity:** No information available. **Reproductive Effects:** No information available. **Mutagenicity:** No information available. **Neurotoxicity:** Chronic exposure to aluminum has produced numbness in fingers and (in one case) brain effects. **Other Studies:** LD50/LC50: No data available. Carcinogenicity: Not listed by ACGIH, IARC, NTP, or CA Prop 65**Stoddard Solvent (CAS#8052-41-3) :** LD50/rabbit/ eye/draize test = 500 mg/24H Moderate; Carcinogenicity: Not listed by ACGIH, IARC, NTP, or CA Prop 65. **Epidemiology:** Epidemiological studies involving petroleum refinery workers indicate persons with routine exposure to petroleum or one of its constituents may be at an increased risk to the development of benign neoplasms, digestive tract cancer, and skin cancer. **Teratogenicity:** No information found **Reproductive Effects:** No information found. **Mutagenicity:** No information found. **Neurotoxicity:** No information found**12- ECOLOGICAL INFORMATION****Aluminum Powder (CAS#7429-90-5):** No information available.**Stoddard Solvent (CAS#8052-41-3):** Ecotoxicity: No data available. No information available. Environmental: No information available. Physical: No information available.

13 – DISPOSAL CONSIDERATIONS

Hazardous wastes should be sent to a RCRA approved incinerator or disposed of in a RCRA approved waste facility. Dispose of container and unused contents in accordance with federal, state and local requirements.

14 – TRANSPORT INFORMATION

DOT PROPER SHIPPING NAME: FLAMMABLE SOLID, ORGANIC n.o.s.
UN/UA NUMBER: UN1325
PACKING GROUP: PG III

IMO PROPER SHIPPING NAME: FLAMMABLE SOLID, ORGANIC n.o.s.
IMO UN CLASS: 4.1
IMO UN NUMBER: UN1325
IMO PACKING GROUP: III
IMO LABEL: FLAMMABLE SOLID
IMO VESSEL STOWAGE: CATEGORY B

IATA: The manufacturer does not recommend shipping this product by air. Please consult a certified hazardous materials freight handler if this mode of shipping is required.



GHS LABEL:

DANGER

HIGHLY FLAMMABLE SOLID AND VAPOR. VAPOR HARMFUL. CAUSES SERIOUS EYE IRRITATION. CAUSES SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. HARMFUL OR FATAL IF SWALLOWED AND ENTERS AIRWAYS.

Refer to MSDS for additional information on safe handling / use. - Keep out of reach of children. For Industrial Use Only.

Contains: Aluminum, and Stoddard Solvent. This product contains one or more chemicals known to the State of California to cause cancer, birth defects, and/or other reproductive harm.

Hazards: H228: Flammable Solid. H319: Causes serious eye irritation. H336: May cause drowsiness or dizziness. H411: Toxic to aquatic life with long lasting effects.

Precautionary Statement(s): P210: Keep away from heat/sparks/open flames/hot surfaces. – No smoking. P403+P233: Store in a well-ventilated place. Keep container tightly closed. P280: Wear protective gloves/protective clothing/eye protection/face protection. P271: Use only outdoors or in a well-ventilated area. P240: Ground/bond container and receiving equipment. P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P303+361+353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P403+233: Store in a well ventilated place. Keep container tightly closed.

First Aid: Inhalation - Move person to fresh air. If symptoms occur obtain medical attention. **Skin Contact** - Wash affected skin with soap and water. If symptoms occur obtain medical attention. **Eye Contact** - If substance has got into the eyes, immediately wash out with plenty of water for at least 15

minutes. If symptoms occur obtain medical attention. Ingestion - Do not induce vomiting. Drink one glass of water. If symptoms occur obtain medical attention.

15 – REGULATORY INFORMATION

Hazards: H228: Flammable Solid. H319: Causes serious eye irritation. H336: May cause drowsiness or dizziness. H411: Toxic to aquatic life with long lasting effects.

Precautionary Statement(s): P210: Keep away from heat/sparks/open flames/hot surfaces. – No smoking. P403+P233: Store in a well-ventilated place. Keep container tightly closed. P280: Wear protective gloves/protective clothing/eye protection/face protection. P271: Use only outdoors or in a well-ventilated area. P240: Ground/bond container and receiving equipment. P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P303+361+353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P403+233: Store in a well ventilated place. Keep container tightly closed.

CODES:



XN



F



N

- XN=harmful
- F=highly flammable
- N= Dangerous to the environment

R-Phrases:

R10: Flammable
 R15: Contact with water liberates extremely flammable gases
 R17: Spontaneously flammable in air
 R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
 R65: Harmful: may cause lung damage if swallowed
 R66: Repeated exposure may cause skin dryness or cracking

S-Phrases:

S7/8: Keep container tightly closed and dry
 S16: Keep away from sources of ignition - No smoking
 S23: Do not breathe gas/fumes/vapor/spray
 S24: Avoid contact with skin
 S36: Wear suitable protective clothing
 S43A: In case of fire, use dry chemical (never use water)
 S60: This material and its container must be disposed of as hazardous waste
 S62: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label

16- DISCLAIMER

Above information is based on data supplied to us and is believed to be correct. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar and since the data made available subsequent to the date hereof may suggest modifications of the information, we do not assume responsibility for the results of its use. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose. It is the user's obligation to determine the safe use of it.