

Aluminum Paste 700 Series

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name: F-718, F-724, F-728

Product Code: Aluminum Paste

Manufacturer/Supplier: Formula Chemicals Co., Ltd.

Address: 18F, No. 178, Dayi Rd., Shulin Dist., New Taipei City 238, Taiwan (R.O.C.)

Emergency telephone number: +886-922582639; +886-2-26685339

2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	COMPOSTITION (Wt%)	CAS.NO
Aluminum Flake	07	7429-90-5
Medium aliphatic solvent	23	64742-88-7
Light aromatic solvent	6.5 – 7.5	64742-95-6
Oleic acid	1.5	112-80-1

3. HAZARD IDENTIFICATION

Physical / Chemical hazards : flammable when in contact with sources of ignition (spark or flame).

4. EMERGENCY AND FIRST AID MEASURES

Inhalation: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Give nothing by mouth. If unconscious, place in recovery position and seek medical advice.

Ingestion: If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do not induce vomiting.

Eyes contact: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open.

Skin contact: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do not use solvents or thinners.

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5. FIRE FIGHTING MEASURES

Flammability classification: Flammable.

Extinguishing media: Suitable Special powder for metal fires.
Dry sand or other suitable absorbent.

Not Suitable: Do not use water jet.

Special exposure hazards: Do not use water.
Reacts violently with water.
Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Reacts with water and carbon oxides
Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Spill: Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Do not allow to enter drains or watercourses. Preferably clean with a detergent. Avoid using solvents. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

7. HANDLING AND STORAGE

Handling: Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Avoid exposure - obtain special instructions before use. Do not get in eyes or on skin or clothing. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is

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inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Properly cleaned containers may be reused.

Storage:

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Packaging materials

Use original container.

8. EXPOSURE/ PROTECTION METHOD**Recommended
monitoring
procedures**

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

**Occupational
exposure controls**

Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Hygiene measures:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Respiratory
Protection:**

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

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Hand Protection:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Skin Protection:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Eye Protection:	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.
Environmental exposure Controls:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. PHYSICAL AND CHEMICAL DATA

Physical state:	Solid / Paste
Color:	Silvery
Odor:	Characteristic
Boiling point:	Lowest known value: 149°C (300°F)
Solubility in water:	Insoluble
Specific Gravity:	1.4~1.6 g/cm ³

10. STABILITY AND REACTIVITY

Stability:	Reactive with acids, alkalis and oxidizing agents. Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid:	Avoid all possible sources of ignition (spark or flame). Avoid exposure - obtain special instructions before use.
Material to Avoid:	Water acids alkalis oxidizing agents
Hazardous decomposition products:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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11. TOXICOLOGICAL INFORMATION

Product/ingredient name	Result	Species	Dose	Exposure
Medium aliphatic solvent	LD50 Oral	Rat	>5 g/kg	-

Target organs: Contains material which causes damage to the following organs: kidneys, liver, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea. Contains material which may cause damage to the following organs: heart.

12. ECOLOGICAL INFORMATION

The product should not be allowed to enter drains or waterways.

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is not classified as dangerous for the environment.

Aquatic ecotoxicity No data available.

Bio-accumulative potential: No data available.

Environmental toxic data: No known significant effects or critical hazards

13. DISPOSAL CONSIDERATIONS

Methods of disposal: The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Hazardous waste: The classification of the product may meet the criteria for a hazardous waste.

14. TRANSPORT INFORMATION

This preparation is not classified as dangerous according the international transport regulations (ADR/RID, IMDG, ICAO/IATA).

15. REGULATORY INFORMATION

Hazard symbol or symbols: N/A

Safety phrases: S2- Keep out of the reach of children.

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	Industrial applications
Product use:	Yes, applicable
Child protection:	Restricted to professional users
Restrictions on the Marketing and Use Directive	
	Listed
EC Inventory (EINECS/ELINCS):	Listed
Australia inventory (AICS):	Listed
Canada inventory (DSL):	Listed
China inventory (IECSC):	Not listed.
Japan inventory (ENCS):	Listed
Korea inventory (KECI):	Listed
Philippines inventory (PICCS):	Listed
TSCA 8(b) inventory:	

16. OTHER INFORMATION

The material supplied is intended only for industrial or laboratory use. The data was prepared in accordance with Directive 91/155/EEC.

Notice to reader:

The information contained herein is accurate to the best knowledge and belief of Formula Chemicals Co., Ltd. and intended to describe the product for the purposes of health, safety and environmental requirements only. It is given in good faith, but is not intended, and should not be construed, as a warranty. It remains the user's own responsibility to ensure that the information is appropriate and complete for their use of this product and that all necessary steps are taken to meet the requirements of applicable legislation.