

# SAFETY DATA SHEET

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## SECTION 1. IDENTIFICATION

**Product Identifier:** Aluminum Ink

**Product Code:** AL-M-01-INK

**CAS Number:** 7429-90-5

**Relevant identified uses of the substance:** Scientific research and development

Supplier details:

American Elements  
10884 Weyburn Ave.  
Los Angeles, CA 90024  
Tel: +1 310-208-0551  
Fax: +1 310-208-0351  
Emergency telephone number:  
+1 800-424-9300

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## SECTION 2. HAZARDS IDENTIFICATION

Irritant

Combustible liquid.

Organic solvents: may form explosive peroxides. Harmful if swallowed, inhaled, absorbed through the skin. Irritating to eyes, respiratory system and skin. Do not breathe vapors/spray; avoid inhalation of aluminum ink aerosol. May damage fertility or the unborn child. Target organs – liver, kidneys, blood, male/female reproductive system.



## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance Name: Aluminum

Formula: Al

Weight Percent: 30-70%

CAS #: 7429-90-5

RTECS Number: BD0330000

EINECS Number: 231-072-3

Substance Name: Proprietary Solvent Mixture

Formula: Proprietary  
Weight Percent:  
30-70%  
CAS #: --

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## **SECTION 4. FIRST AID MEASURES**

**Inhalation:** If cough, shortness of breath or other breathing problems occur, move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if symptoms persist.

**Skin Exposure:** Immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Seek medical attention if redness, swelling, itching, burning or visual disturbances occur. Thoroughly wash clothing and shoes before reuse.

**Eye Exposure:** Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Seek medical attention if redness, swelling, itching, burning or visual disturbances occur.

**Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. If conscious, give several glasses of water. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately.

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## **SECTION 5. FIREFIGHTING MEASURES**

**Flammable Hazard:** Organic solvents may form peroxides of unknown stability.

**Flammability Data:** Flash Point > 190°F

**Explosion Limits:** Not established for this product.

**Autoignition Temperature:** Not established for this product.

**Fire Extinguishing Media:** For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

**Firefighting:** Wear suitable protective equipment and self-contained breathing apparatus. Combustible liquid. Emits toxic fumes under fire conditions.

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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

**Personal Precautions:** Ensure adequate ventilation. Remove all sources of ignition. Use personal protective equipment. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

**Spill Procedure:** Evacuate area. Shut off all sources of ignition. Do not allow material to be released to the environment without proper governmental permits.

**Spill Clean-Up:** Absorb with sand and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

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## **SECTION 7. HANDLING AND STORAGE**

**Handling/Usage Precautions:** Avoid inhalation of aluminum ink/paste aerosol. Avoid contact with skin and eyes. Avoid formation of dust, aerosol, or mist. Do not breathe aerosols or dust from dried material. Provide appropriate exhaust ventilation at machinery and at places where dust can be generated.

Avoid prolonged or repeated exposure.

Storage Precautions: Keep container tightly closed in a cool dry place. Keep in properly labeled containers. Keep away from heat and sources of ignition. Minimize exposure to air. If peroxide formation is suspected, do not open or move container.

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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Engineering Controls: Provide exhaust ventilation or other engineering controls to minimize airborne concentration of vapors. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protective Equipment: Safety glasses and compatible chemical-resistant gloves. Where risk assessment shows air-purifying respirators are appropriate use a NIOSH approved full-face respirator with multi-purpose combination respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.

General Hygiene Measures: Wash thoroughly after handling. Wash contaminated clothing before reuse. Keep away from foodstuffs, beverages and feed.

Exposure Limits: There are no exposure limits for this specific product.

Aluminum Metal (mg/m<sup>3</sup>)

ACGIH TLV 10 (dust); 5 (pyro powder)

Alberta Canada TWA 10; 20-STEL (dust)

5; 10-STEL (pyro powder)

Belgium TWA 10 (dust); 5 (pyro powder)

BC Canada TWA 3 (resp dust); 10 (total dust); 5 (pyro powder)

Germany MAK 1.5 (resp dust)

Ireland TWA 5 (resp dust); 10 (total inhal dust)

Japan TWA 0.5 (resp dust); 2 (total dust)

Netherlands MAC-TGG 10 (dust); 5 (pyro powder)

Quebec Canada TWA 10 (dust); 5 (pyro powder)

Sweden TWA 4 (resp dust); 10 (total dust)

United Kingdom TWA 4 (resp dust); 10 (total inhal dust)

USA PEL 5 (resp dust); 15 (total dust); 5 (pyro powder)

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## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical State: Liquid, paste

Color: Silver-grey

Molecular Weight: Aluminum 26.98 amu

Melting Point: Not established for this product.

Boiling Point: Not established for this product.

Density @ 20°C: Not established for this product.

Solubility: Sparingly soluble in water. Miscible with organics such as toluene.

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## **SECTION 10. STABILITY AND REACTIVITY**

Stability: Stable under ordinary conditions of use and storage. Upon exposure to air, product may slowly degrade, forming peroxides, which can be unstable.

Incompatibilities: Strong oxidizing agents and strong bases. Heat, flames, sparks.

Reactivity: Not established for this product.

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

Route of Exposure: Skin Contact/Absorption – Irritating to skin. May be harmful if absorbed through the skin. Avoid contact with skin.

Eye Contact – Irritating to eyes. Avoid contact with eyes.

Inhalation – May be harmful if inhaled. Irritating to respiratory system. Avoid inhalation.

Ingestion – Harmful if swallowed.

Signs and Symptoms of Exposure:

Not established for this product.

Target Organs or Systems: Not established for this product.

Toxicity Data: Not established for this product.

Additional Toxicological

Information:

To the best of our knowledge the acute and chronic toxicity of this product is not fully known.

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## **SECTION 12. ECOLOGICAL INFORMATION**

Environmental Hazards: Avoid washing into water courses. Avoid contaminating public drains or water supply. Do not allow material to be released to the environment without proper government permits.

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

Product: Recover and reclaim or recycle if practical. Observe all state, local or national environmental regulations.

Uncleaned Packaging: Disposal must be made according to official regulations.

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## **SECTION 14. TRANSPORT INFORMATION**

DOT Regulations: Not dangerous goods

Air Transport IATA-DGR: Not dangerous goods

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## **SECTION 15. REGULATORY INFORMATION**

Regulatory Information: Not established. All components listed on TSCA Inventory.

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## **16. OTHER INFORMATION**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for

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