MATERIAL SAFETY DATA SHEET

Republic Powdered Metals, Inc.

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NPCA - HMIS RATING METHOD

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HEALTH	2
FIRE	2
REACTIVITY	· 1
PERSONAL PROTECTION	G

I. PRODUCT IDENTIFICATION

MSDS #301

TRADE NAME: ALUMANATION 301 SYNONYMS: Aluminum roof coating

DOT HAZARD CLASSIFICATION: Not subject to DOT regulations.

II. HAZARDOUS INGREDIENTS										
INGREDIENT/CAS#	OSHA PEL	ACGIH TLV	NUISANCE DUST*	LD50	LC50	SARA 302	SARA 313	WEIGHT LESS THAN		
Asphalt 8052-42-4	5 mg/m³		No			No	No	35%		
Mineral Spirits 8052-41-3	100 ppm	100 ppm	No			No	No	35%		
Silicates 12001-26-2	15 mg/m³	10 mg/m ³	Yes			No	No	5%		
Aluminum 7429-90-5	15 mg/m³	10 mg/m³	Yes	5000 mg/kg	3160 mg/kg	No	No	20%		

^{*} Only a dust hazard when removing dry coating.

III. PHYSICAL DATA

INITIAL BOILING POINT: 311°F

SPECIFIC GRAVITY (H₀0=1): 1.02

VAPOR DENSITY: Heavier than air.

SOLUBILITY IN WATER: Non-soluble

FREEZING POINT: N/A

pH: N/A

APPEARANCE AND ODOR: Viscous liquid, mild petroleum odor. EVAPORATION RATE: Slower than n-Butyl Acetate

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VOC: 409 g/l

IV. FIRE AND EXPLOSION DATA

FLASH POINT °F (Tag Closed Cup): 105°F

FLAMMABLE LIMITS IN AIR BY VOLUME-

LOWER:

0.9% UPPER:

7.0%

EXTINGUISHING MEDIA: Foam, alcohol foam, CO2, dry chemical

HAZARDOUS DECOMPOSITION OR PRODUCTS: Fire conditions may yield carbon monoxide or carbon dioxide.

SPECIAL FIRE FIGHTING PROCEDURES: Use self-contained breathing apparatus (NIOSH-approved)

UNUSUAL FIRE & EXPLOSIVE HAZARDS: Vapor heavier than air - may accumulate in lower areas and explode. Residue in empty

container may explode if ignited.

SENSITIVITY TO STATIC DISCHARGE: Possible

SENSITIVITY TO IMPACT: N/A

V. REACTIVITY DATA

STABILITY: Stable.

CONDITIONS TO AVOID: Keep from heat, sparks and open flame

INCOMPATIBILITY: Strong oxidizing agents. HAZARDOUS POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Fire conditions may yield carbon monoxide or carbon dioxide.

VI. HEALTH HAZARD INFORMATION

EFFECTS OF OVEREXPOSURE - AVENUE OF ENTRY:

EYES: Contact with liquid or vapor may irritate eyes.

SKIN: Possible irritation and dermatitis. Prolonged contact with skin may be hazardous.

INHALATION: Possible nasal irritation, dizziness, nausea and asphyxiation. SWALLOWING: Toxic effects possible, can cause gastrointestinal problems.

FIRST AID:

IF IN EYES: Flush eyes with copious amounts of water - get medical attention.

IF ON SKIN: Wash skin thoroughly with soap and water. Launder contaminated clothes.

IF INHALED: Move subject to fresh air. Administer artificial respiration if breathing has stopped. Get medical attention. IF SWALLOWED: Do not induce vomiting. Vomit in lungs can cause chemical pneumonitis. Give water. Call a physician.

VII. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Remove sources of heat, flames and sparks, confine spill. For large spill, notify authorities. Add absorbent to spill area. Avoid breathing fumes. Wear appropriate respirator. Ventilate area.

WASTE DISPOSAL METHOD: Dispose at approved site under RCRA regulations for hazardous waste.

PRECAUTIONS TO TAKE IN STORAGE AND HANDLING: Store in accordance with regulations for a flammable material.

OTHER PRECAUTIONS: Keep product away from heat, sparks, and open flame. Keep container closed when not in use. Use with adequate ventilation. Avoid prolonged or repeated inhalation of mist or vapor and skin contact. Dispose of in accordance with RCRA hazardous waste disposal rules. Do not use empty containers for other purposes. Residual vapors in drum may be explosive if ignited and are hazardous. Do not use cutting torch on the "EMPTY" containers.

CAUTION: KEEP OUT OF THE REACH OF CHILDREN.

VIII. SAFE HANDLING AND USE INFORMATION

RESPIRATORY PROTECTION: Self-contained breathing apparatus for concentrations above TLV limits.

VENTILATION: Yes, if conditions exist that permit high vapor concentration in air.

PROTECTIVE GLOVES: Oil resistant gloves.

EYE PROTECTION: Chemical splash-proof goggles recommended.

OTHER PROTECTIVE EQUIPMENT OR CLOTHING: Protective clothing and shoes recommended.

HYGIENIC PRACTICES: After using product, wash hands with soap and water.

IX. DISCLAIMER

The information accumulated herein is believed to be accurate but is not warranted to be, whether originating with Republic or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

DEFINITIONS

HMIS - Hazardous Materials Identification System

DOT - Department of Transportation PEL - Permissible Exposure Limit

C 50 - Lethal Concentration RCRA - Resource Conservation & Recovery Act

T/S - Trade Secret

VOC - Volatile Organic Compound CAS - Chemical Abstracts Service TLV - Threshold Limit Value

LD 50 - Lethal Dose

CFR - Code of Federal Regulations

N/A - Not Available

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety & Health Administration

NPCA - National Paint & Coatings Association

SARA - Superfund Amendments & Reauthorization Act of 1986 NIOSH - National Institute for Occupational Safety & Health

N/E - Not Established.

TRADE NAME: ALUMANATION 301

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