

# SAFETY DATA SHEET

**Product:** 1000-L  
**Revision Date:** 1 May 2017  
**Revision Editor:** Paul Davies

## 1. MATERIAL IDENTIFICATION

**Product Name:** Pyro-Putty 1000-L Liquid Binder  
**Product Description:** Slightly Cloudy, Odorless Liquid  
**Product Use:** High Temperature Adhesive/Coating Liquid Binder  
**Manufacturer:** Aremco Products, Inc.  
707-B Executive Blvd.  
Valley Cottage, NY 10989  
**Telephone:** 845-268-0039  
**Emergency Phone:** 845-268-0039 or Infotrac (24/7) 800-535-5053

IMPORTED BY CASWELL AUSTRALIA

25 BIRCH COURT  
WYNDHAM VALE  
VICTORIA 3024  
AUSTRALIA

**Telephone:** 03 9741 7103  
**Emergency Phone:** 000

## 2. HAZARDS IDENTIFICATION

### **GHS Classification:**

Eye Irritation Category 2A  
Skin Irritation Category 2

### **GHS Symbol:**



### **GHS Signal Word:**

Warning

### **GHS Hazard Determining Component:**

Silicate Solution

### **GHS Hazard Statements for Health Hazards:**

H303 Harmful if swallowed.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.

### **GHS Precautionary Statements - Prevention:**

P264 Wash hands thoroughly after handling.  
P280 Wear protective gloves. Wear eye protection.

### **GHS Precautionary Statements - Response:**

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P332 + P313 If skin irritation occurs: Get medical advice/attention.  
P305 + P351 + P338 IF IN EYES: Remove contact lenses, if present and easy to do. Rinse cautiously with water for several minutes.  
P312 IF SWALLOWED: Call a poison center or doctor if you feel unwell  
P362 Take off contaminated clothing and wash before reuse.

### **GHS Storage/Disposal:**

P501 Dispose in accordance with local, regional, national or international regulations

## 3. COMPOSITION

<b>Chemical Name</b>	<b>CAS No.</b>	<b>EC No.</b>	<b>Concentration</b>	<b>GHS Product Identifier</b>
Silicate Solution	1344-09-8	215-687-4	40.0-60.0%	H302 Acute Toxicity, Oral, Cat 4 H315 Skin Corrosion/Irritation, Cat 2 H319 Eye Damage/Eye Irritation, Cat 2A H335 STOT, SE; Respiratory Tract Irritation, Cat 3
Water	7732-18-5	NA	40.0-60.0%	N/A

#### 4. FIRST AID MEASURES

**After eye contact:** Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek immediate medical attention, preferably with an ophthalmologist.

**After skin contact:** Immediately wipe excess material off skin with a dry cloth then wash with soap and water for at least 5 minutes.

**After inhalation:** In case of inhalation due to spray mist, remove source of exposure and assure that victim is breathing. If not breathing, administer cardio-pulmonary resuscitation (CPR).

**After ingestion:** If swallowed, do not induce vomiting. If victim is conscious and alert, give 1-2 glasses of water to drink. Do not give anything by mouth to an unconscious person. Seek medical attention immediately.

**Medical Conditions Possibly Aggravated by Exposure:** Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

#### 5. FIRE FIGHTING MEASURES

**Extinguishing Media:** This material is compatible with all extinguishing media.

**Special Fire Fighting Procedures:** Firefighters should wear NIOSH/MSHA approved positive pressure breathing apparatus with full face-piece and full chemical resistant protective clothing. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

**Unusual Fire and Explosion Hazards:** This material is non-combustible.

#### 6. ACCIDENTAL RELEASE MEASURES

**Personal Protection:** Wear chemical goggles, body-covering protective clothing, chemical resistant gloves, and rubber boots. Use NIOSH approved respirator where mist occurs.

**Spill Cleanup:** Mop up and neutralize liquid, then discharge to sewer in accordance with federal, state and local regulations or permits. Flush area with water to complete cleanup. Exercise caution during neutralization as heat may be generated.

#### 7. HANDLING AND STORAGE

**Handling:** Avoid contact with eyes, skin and clothing. Avoid breathing spray mist. Keep container closed. Promptly clean residue from closures with cloth dampened with water. Promptly clean up spills.

**Storage:** Store in an area that is cool, dry, well ventilated, away from combustible material, and away from ignition sources. Keep containers closed. Store in clean plastic or stainless steel containers.

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name	CAS No.	EC No.	TLV (mg/m <sup>3</sup> )	PEL (mg/m <sup>3</sup> )
Silicate Solution	1344-09-8	215-687-4	No available information	No available information

**Engineering Controls:** Use with adequate ventilation. Keep containers closed. Safety shower and eyewash fountain should be within direct access.

**Respiratory Protection:** This product is not considered respirable in either the liquid or cured forms. However, if the cured product is polished, ground or chipped during processing, handling or use, powders may be released as airborne respirable particles. In these instances, appropriate personal protection equipment and local ventilation controls must be employed. If exposure limits are exceeded and local ventilation is unavailable, a supplied-air respirator or a self-contained NIOSH-approved dust and mist respirator is required.

**Skin Protection:** Wear body-covering protective clothing and gloves.

**Eye Protection:** Wear chemical goggles.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and chemical here represent typical properties of this product. Contact Technical Sales for exact specifications.

**Appearance:** Liquid

**Color:** Slightly Cloudy

**Odor Threshold:** No available information

**Odor:** Odorless

**pH:** 11.0-11.5

**Specific Gravity, g/cc** 1.30-1.50

**Water Solubility:** Soluble

<b>Melting Point:</b>	Not applicable
<b>Boiling Point:</b>	100 °C
<b>Vapor Pressure:</b>	Not applicable
<b>Vapor Density (air=1):</b>	No data
<b>VOC Content:</b>	0.00 lbs/gal
<b>Viscosity:</b>	< 500 cP
<b>Decomposition Temperature:</b>	Not applicable
<b>Auto-ignition Temperature</b>	Not applicable
<b>Partition Coefficient:</b>	No data
<b>Flash Point:</b>	Not applicable
<b>Flammability:</b>	Not applicable
<b>Evaporation Rate:</b>	Not applicable

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability:</b>	This material is stable under all conditions of use and storage.
<b>Conditions to Avoid:</b>	Prolonged contact with aluminum, brass, copper, lead, and zinc may produce flammable hydrogen gas.
<b>Materials to Avoid:</b>	Gels and heats when mixed with acid. May react with ammonium salts resulting in evolution of ammonia gas.
<b>Hazardous Decomposition Products:</b>	None.
<b>Hazardous Polymerization:</b>	Will not occur.

## 11. TOXICOLOGICAL INFORMATION

<b>Acute Toxicity:</b>	Component: Silicate Solution LD50 Oral, 1153 mg/kg (Rat) LD50, Inhalation, No Data LD50, Dermal, 4640 mg/kg (Rabbit)
<b>Skin Corrosion/Irritation:</b>	Irritating to skin
<b>Serious Eye Damage/Irritation:</b>	Irritating to eyes
<b>Sensitization:</b>	Not sensitizing
<b>Mutagenicity:</b>	No data
<b>Carcinogenicity:</b>	This product is not listed by IARC, NTP, OSHA, or ACGIH as a known or suspected carcinogen.
<b>Reproductive Toxicity:</b>	No data

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity:</b>	This material is believed to be practically non-toxic to aquatic life.
<b>Biodegradation:</b>	This material is inorganic and not subject to biodegradation.
<b>Persistence:</b>	this material is believed to persist in the environment.
<b>Bioconcentration:</b>	This material is not expected to bioconcentrate in organisms.
<b>Physical/Chemical:</b>	Sinks and mixes with water. Only water will evaporate from this material.

## 13. DISPOSAL CONSIDERATIONS

<b>Disposal Method:</b>	Dispose in accordance with federal, state and local regulations and permits.
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## 14. TRANSPORTATION INFORMATION

<b>DOT UN Status:</b>	The material is not a regulated hazardous material for transportation.
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## 15. REGULATORY INFORMATION

<b>U.S. Federal Regulations</b>	
<b>CERCLA:</b>	No CERCLA reportable quantity has been established for this material.
<b>TSCA:</b>	All ingredients of this material are listed on the TSCA inventory.

**SARA Title III**



**Sections 302, 304, 313:** This product does not contain any substances reportable under these sections.

**Sections 311, 312:**

<b>Hazard Classes</b>	<b>Yes/No</b>
Fire Hazard	No
Reactivity Hazard	No
Pressure Hazard	No
Immediate Hazard	Yes
Delayed Hazard	No

<b>International Inventory</b>	<b>Status</b>
Canada (DSL)	Yes
Europe (EINECS/ELINCS)	Yes
Australia (AICS)	Yes
Japan (MITI)	Yes
South Korea (KECL)	Yes

**16. OTHER INFORMATION**

<b>NFPA Ratings (scale 0 – 4)</b>	Health, 1 Flammability, 0 Reactivity, 0 Personal Protection, C	
<b>HMIS Ratings (scale 0 – 4)</b>	Health, 1 Flammability, 0 Reactivity, 0 Personal Protection, C	

**Key Legend Information**

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists
<b>ARD</b>	International Agency for Research on Cancer
<b>CAS</b>	Chemical Abstract Service
<b>CERCLA</b>	Comprehensive Environmental Response, Compensation & Liability Act
<b>DSL</b>	Domestic Substance List
<b>EC</b>	European Commission
<b>HMIS</b>	Hazardous Materials Identification System
<b>IARC</b>	International Agency for Research on Cancer
<b>ND</b>	Not Determined
<b>NE</b>	Not Established
<b>NFPA</b>	National Fire Protection Association
<b>NIOSH</b>	National Institute for Occupational Safety & Health
<b>NTP</b>	National Toxicology Program
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PEL</b>	Permissible Exposure Limit
<b>RE</b>	Repeat Exposure
<b>SARA</b>	Superfund Amendments & Reauthorization Act
<b>SARA Title III</b>	Emergency Planning & Community Right to Know Act
<b>SARA Section 302</b>	Extremely Hazardous Substances
<b>SARA Section 304</b>	Emergency Release
<b>SARA Section 311</b>	MSDS/List of Chemicals & Hazardous Inventory
<b>SARA Section 312</b>	Emergency & Hazardous Inventory
<b>SARA Section 313</b>	Toxic Chemicals & Release Reporting
<b>SE</b>	Single Exposure
<b>STEL</b>	Short Term Exposure Limit
<b>STOT</b>	Specific Target Organ Toxicity
<b>TLV</b>	Threshold Limit Value
<b>TWA</b>	Time Weighted Average

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# SAFETY DATA SHEET

**Product:** 1000-P  
**Revision Date:** 6/01/2015

## 1. MATERIAL IDENTIFICATION

**Product Name:** Pyro-Putty 1000-P  
**Product Description:** Silver-Grey, Odorless Powder  
**Product Use:** High Temperature Adhesive Powder  
**Manufacturer:** Aremco Products, Inc.  
707-B Executive Blvd.  
Valley Cottage, NY 10989  
**Telephone:** 845-268-0039  
**Emergency Phone:** 845-268-0039 or Infotrac (24/7) 800-535-5053

## 2. HAZARDS IDENTIFICATION

**GHS Classification:**  
Not classified.

**GHS Symbol:**



**GHS Signal Word:**  
Warning

**GHS Hazard Determining Component:**  
Aluminum

**GHS Hazard Statements:**  
May form combustible dust concentrations in air. The powder does not meet the criteria for classification.

**GHS Precautionary Statements - Prevention:**

P210 Prevent dust accumulation to minimize explosion hazard.  
P240 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P242 Ground/bond container and receiving equipment.  
P241 Use only non-sparking tools.  
P280 Use explosion-proof electrical/ventilating/lighting equipment.  
P261 Wear protective gloves/eye protection/face protection.  
Avoid breathing dust.

**GHS Precautionary Statements - Response:**

P370 + P378 In case of fire: Use appropriate media to extinguish.

**GHS Precautionary Statements - Storage/Disposal:**

P402 + P404 Store in a dry place. Store in a closed container.  
P501 Dispose in accordance with local, regional, national or international regulations.

## 3. COMPOSITION

Chemical Name	CAS No.	EC No.	Concentration	GHS Product Identifier
Aluminum Powder	7429-90-5	231-072-3	90.0-100.0%	H228 Flammable Solids, Cat 1 H261 Substances & Mixtures Which, In Contact With Water, Emit Flammable Gases, Cat 3
Alumino-Silicate	1332-58-7	310-194-1	1.0-10.0%	H335 STOT, RE; Respiratory Tract Irritation, Cat 3

#### 4. FIRST AID MEASURES

<b>Eye Exposure:</b>	Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek immediate medical attention, preferably with an ophthalmologist. If a physician is not immediately available, eye irrigation should be continued for an additional 15 minutes.
<b>Skin Exposure:</b>	Immediately wipe excess material off skin with a dry cloth then wash with plenty of soap and water for at least 5 minutes. See medical attention if irritation develops or persists. Remove contaminated clothing and shoes and clean thoroughly before re-use.
<b>Inhalation:</b>	Remove from immediate source of exposure and assure that victim is breathing. If not breathing, administer cardio-pulmonary resuscitation (CPR). If breathing is difficult, administer oxygen if available. Seek medical attention.
<b>Ingestion:</b>	If swallowed, do not induce vomiting. If victim is conscious and alert, give 1-2 glasses of water to drink. Do not give anything by mouth to an unconscious person. Seek medical attention immediately. Do not leave victim unattended. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. Vomiting may occur spontaneously. If vomiting occurs and the victim is conscious, give water to further dilute the chemical.
<b>Medical Conditions Possibly Aggravated by Exposure:</b>	Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

#### 5. FIRE FIGHTING MEASURES

<b>Extinguishing Media:</b>	Dry chemical, carbon dioxide, and foam.
<b>Special Fire Fighting Procedures:</b>	Gently cover the burning powder and form a ring around it with the extinguishing agents recommended. Do not actually mix the agent with the burning powder and do not disturb the powder until it cools to ambient temperature. At no time should dust clouds be allowed to form. Firefighters should wear NIOSH/MSHA approved positive pressure breathing apparatus with full face-piece and full chemical resistant protective clothing. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.
<b>Unusual Fire &amp; Explosion Hazards:</b>	Class "D" dry chemical extinguishing agent or other suitable extinguishing material such as dry sand. Do not use Class "A", "B" or "C" extinguishers or halogenated agents. Do not use water. Water and burning finely divided aluminum react violently forming hydrogen gas and aluminum oxide. Aluminum particles will burn at a very high temperature as a mass of material or be potentially explosive if loosened and dispersed in air. At no time should a dust cloud be allowed to form. This material is potentially explosive when loosened and dispersed in air. Follow the listed fire fighting procedures carefully and refer to the Aluminum Association TR-2 Bulletin.
<b>Hazardous Decomposition Materials:</b>	Aluminum reacts with water, acids or alkalis to form combustible hydrogen gas.

#### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Protection:</b>	Wear chemical goggles, body-covering protective clothing, chemical resistant gloves, and rubber boots. Use NIOSH approved respirator where mist occurs.
<b>Spill Cleanup:</b>	Remove all ignition sources. Keep people away. Avoid exposure to sparks, fire or hot metal surfaces. Use non-sparking tools and transfer spilled material to a leak proof container for disposal in accordance with federal, state and local regulations or permits.

#### 7. HANDLING AND STORAGE

<b>Handling:</b>	Avoid contact with eyes, skin and clothing. Avoid breathing spray mist. Keep container closed. Promptly clean residue from closures with cloth dampened with water. Promptly clean up spills.
<b>Storage:</b>	Store in an area that is cool, dry, well ventilated, away from combustible material, and away from ignition sources. Keep containers closed. Store in clean plastic or stainless steel containers.

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name	CAS No.	EC No.	PEL (mg/m <sup>3</sup> )	TLV (mg/m <sup>3</sup> )
Aluminum Powder, Stabilized	7429-90-5	231-072-3	5	5
Alumino-Silicate	1332-58-7	310-194-1	No available information	5

<b>Engineering Controls:</b>	Use with adequate ventilation. Exhaust fan should be explosion proof. Keep containers closed. Safety shower and eyewash fountain should be within direct access. No smoking or open lights.
<b>Respiratory Protection:</b>	If exposure limits are exceeded and local ventilation is unavailable, a supplied-air respirator or a self-contained NIOSH-approved dust and mist respirator is required.
<b>Skin Protection:</b>	Wear body-covering protective clothing and gloves.
<b>Eye Protection:</b>	Wear chemical goggles.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and chemical here represent typical properties of this product. Contact Technical Sales for detailed specifications.

<b>Appearance:</b>	Powder
<b>Color:</b>	Silver-Grey
<b>Odor:</b>	Odorless
<b>Odor Threshold:</b>	Not available
<b>pH:</b>	Not available
<b>Melting/Freezing Point:</b>	Not available
<b>Boiling Point Range:</b>	Not available
<b>Flash Point:</b>	Not available
<b>Evaporation Rate:</b>	Not available
<b>Flammability:</b>	Not available
<b>Flammability Limits:</b>	Not available
<b>Vapor Pressure:</b>	Not available
<b>Vapor Density:</b>	Not available
<b>Relative Density:</b>	Not available
<b>Solubility (water):</b>	None
<b>Auto-Ignition Temperature:</b>	1094 F (590 C)
<b>Decomposition Temperature:</b>	Not available
<b>Specific Gravity, g/cc:</b>	2.5-2.7
<b>Vapor Density (air=1):</b>	Heavier than air
<b>VOC Content, g/l:</b>	0.00

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability:</b>	This material is stable under normal storage conditions.
<b>Conditions to Avoid:</b>	Heat, sparks, and open flames.
<b>Materials to Avoid:</b>	Water, acids, alkalis, chlorinated hydrocarbons and strong oxidizers.
<b>Hazardous Decomposition Products:</b>	Combustible hydrogen gas.
<b>Hazardous Polymerization:</b>	Will not occur.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure:

<b>Inhalation:</b>	Dust may irritate respiratory system. Prolonged inhalation may be harmful.
<b>Skin:</b>	Dust or powder may irritate the skin.
<b>Eye:</b>	Dust may irritate the eyes.
<b>Ingestion:</b>	Harmful if swallowed.

<b>Symptoms related to the physical, chemical and toxicological characteristics:</b>	Dusts may irritate the respiratory tract, skin and eyes.
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### Information on toxicological effects:

<b>Acute Toxicity:</b>	Not available.
<b>Skin Corrosion/Irritation:</b>	Not expected to be hazardous by OSHA criteria. Due to lack of data the classification is not possible.
<b>Serious Eye Damage/Irritation:</b>	Due to lack of data the classification is not possible.
<b>Respiratory Sensitization:</b>	Due to lack of data the classification is not possible.
<b>Skin Sensitization:</b>	This product is not expected to cause skin sensitization.
<b>Germ Cell Mutagenicity:</b>	Due to lack of data the classification is not possible.
<b>Carcinogenicity:</b>	Not expected to be hazardous by WHMIS criteria. Not expected to be hazardous by OSHA criteria. This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
<b>Reproductive Toxicity:</b>	Not expected to be hazardous by OSHA criteria. Due to lack of data the classification is not possible.
<b>STOT, Single Exposure:</b>	Due to lack of data the classification is not possible.
<b>STOT, Repeated Exposure:</b>	May cause damage to organs through prolonged or repeated exposure.
<b>Aspiration Hazard:</b>	Due to lack of data the classification is not possible.
<b>Chronic Effects:</b>	Not expected to be hazardous by WHMIS criteria. Hazardous by OSHA criteria. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.
<b>Further Information:</b>	This product has no known adverse effect on human health.



## 12. ECOLOGICAL INFORMATION

**Ecotoxicity:** Ecological injuries are not known or expected under normal use.  
**Persistence & Degradability:** Not available.  
**Bioaccumulative Potential:** Not available.  
**Mobility in Soil:** Not available.  
**Other Adverse Effects:** Not available.

## 13. DISPOSAL CONSIDERATIONS

**Disposal Method:** Dispose in accordance with federal, state and local regulations and permits.

## 14. TRANSPORTATION INFORMATION

**DOT UN Status:** This material is not a regulated hazardous material for transportation.

## 15. REGULATORY INFORMATION

### U.S. Federal Regulations

**CERCLA:** No CERCLA reportable quantity has been established for this material.

**TSCA:** All ingredients of this material are listed on the TSCA inventory.

### **SARA Title III**

**Sections 302, 304, 313:** This product does not contain any substances reportable under these sections.

### **Sections 311, 312:**

<u>Hazard Classes</u>	<u>Yes/No</u>
Fire Hazard	No
Reactivity Hazard	No
Pressure Hazard	No
Immediate Hazard	No
Delayed Hazard	No

<u>International Inventory</u>	<u>Status</u>
Canada (DSL)	Yes
Europe (EINECS/ELINCS)	Yes
Australia (AICS)	Yes
Japan (MITI)	Yes
South Korea (KECL)	Yes

## 16. OTHER INFORMATION

### Key Legend Information

ACGIH	American Conference of Governmental Industrial Hygienists
ARD	International Agency for Research on Cancer
CAS	Chemical Abstract Service
CERCLA	Comprehensive Environmental Response, Compensation & Liability Act
DSL	Domestic Substance List
EC	European Commission
HMIS	Hazardous Materials Identification System
IARC	International Agency for Research on Cancer
ND	Not Determined
NE	Not Established
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety & Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
RE	Repeat Exposure
RTECS	Registry of Toxic Effects of Chemical Substances
SARA	Superfund Amendments & Reauthorization Act
SARA Title III	Emergency Planning & Community Right to Know Act
SARA Section 302	Extremely Hazardous Substances
SARA Section 304	Emergency Release
SARA Section 311	MSDS/List of Chemicals & Hazardous Inventory
SARA Section 312	Emergency & Hazardous Inventory
SARA Section 313	Toxic Chemicals & Release Reporting
SE	Single Exposure
STEL	Short Term Exposure Limit
STOT	Specific Target Organ Toxicity
TLV	Threshold Limit Value
TWA	Time Weighted Average

**Disclaimer:** The information contained herein is based on data taken from sources believed to be both current and reliable at the time of publication. Aremco Products, Inc. makes no warranty, expressed or implied, as to the accuracy of this MSDS and assumes no liability arising from its use by others. Compliance with all applicable Federal, State and Local laws and regulations remains the responsibility of the user.