Safety Data Sheet

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SECTION 1: Identification

1.1 Product

Thermon ALP Dielectric Primer

1.2 Recommended use / restrictions on use

For use, primarily, in heat tracing and various other applications as a primer coating on aluminum surfaces.

1.3 Supplier

Manufacturer: Thermon Manufacturing Company
Address: 100 Thermon Drive, San Marcos, Texas 78667 USA
Telephone: 1 (800) 820-4328 or 1 (512) 396-5801

1.4 Emergency phone number

1 (800) 820-4328 or 1 (512) 396-5801
1 (713) 205-2690 (24 Hours)
Alternate: National Poison Control Center: 1 (800) 222-1222

SECTION 2: Hazard identification

2 General Information

Hazards arising from this product are primarily present when product is in the uncured state. Once hardened, the compound is non-hazardous; however dust that may result from mechanical disturbance can be hazardous. Uncured product is a viscous paste (see detailed composition in Section 3). Product cures (hardens) slowly upon exposure to air or more rapidly upon exposure to heat. Product is packaged in 1 gallon (3.8 L) containers.

2.1 Hazard classification

GHS: Contact hazard-skin: Category 2
GHS: Contact hazard-eyes: Category 2A
GHS: Acute toxicity-oral: Category 4

2.2 Label types

Signal word: Warning

Symbols: Exclamation mark

Pictogram:

2.3 Hazard statements

Causes skin irritation. During installation, the compound is alkaline and may cause irritation of the skin and eyes on contact.

Causes serious eye irritation.

Harmful if swallowed. If swallowed the compound may cause irritation to mucous membranes of mouth, throat, esophagus and gastrointestinal systems.

May be harmful if inhaled. Once hardened, the compound is non-hazardous. Cutting, grinding, crushing, or drilling hardened compound may generate dust containing silica and clay. The dust may irritate the nose, throat, and respiratory tract. Coughing, sneezing, chest pain, shortness of breath, inflammation of mucous membrane, and flu-like fever may occur following exposures in excess of appropriate exposure limits. Pre-existing respiratory conditions may be aggravated when in the presence of dust.

2.3.1 Risk code

Irritating to the skin, eyes, and respiratory system

2.3.2 Safety statements

In case of contact with eyes, rinse immediately with water for several minutes and seek medical advice.

Wear suitable protective clothing, gloves, and eye/face protection.

Do not breathe dust.

2.3.3 Precautionary statements

Do not get in eyes, on skin, or on clothing.

Wear protective gloves/protective clothing/eye protection/face protection.

If on skin or hair, rinse skin or hair with water or shower. Wash with plenty of soap and water for skin irritation. Take off contaminated clothing and wash before reuse.

If in eyes, rinse immediately with water for several minutes. Remove contact lenses, if present, and easy to do. Continue rinsing.

Get medical advice/attention, if irritation persists.

2.4 Hazards not otherwise classified

None

SECTION 3: Composition/information on ingredients

Ingredient	CAS No	EC No	Risk*	Weight % +
Ball Clay	1332-58-7	310-194-1		20 – 50 %
Aqueous Alkaline Sodium Silicate	1344-09-8	215-687-4	Xi	20 - 70 %

* See SECTION 2 for a full list of risk codes and safety statements.

\+ The exact percentage of this composition is held as a trade secret.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact: Flush thoroughly with water for several minutes, while holding eye lids open. Remove contact lenses if easy to do. If irritation persists, seek medical attention.

Skin contact: Wash the area of contact with soap and water. If irritation persists seek medical attention
Inhalation: Relocate to fresh air. If breathing is difficult after being relocated to fresh air, administer oxygen and seek medical attention. If irritation persists or develops later, seek medical attention
Ingestion: If ingested, irritation can be reduced by rinsing mouth with water, drinking water, and otherwise treating symptomatically. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

No known significant effects or critical hazards. Refer to SECTION 11- Information on toxicological effects. The toxicity of sodium silicate is dependent on the silica to alkali ratio and on the pH.

4.3 Indication of immediate medical attention and special treatment needed

Notes to physician: No specific treatment. Treat symptomatically. Contact a poison treatment specialist if large quantities have been ingested or inhaled.
Protection of first aid personnel: No action shall be taken involving any personal risk or without suitable training. Wash contaminated clothing thoroughly with water.

SECTION 5: Fire-fighting measures

5.1 Flammable limits

This material is noncombustible.

5.2 Suitable extinguishing media

Small fires should use dry chemical, while large fires should use water spray, CO_2, fog, or foam.

5.3 Unsuitable extinguishing media

No information available.

5.4 Special exposure hazards arising from product

No special exposure hazards are known.

5.5 Special protective equipment for fire-fighting

Wear self contained breathing apparatus (SCBA) for fire-fighting if necessary.

SECTION 6: Accidental release measures

6.1 Personal precautions

For large spills, wear chemical goggles, body-covering protective clothing, chemical resistant gloves, and rubber boots. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2 Environmental precautions

This compound sinks and subsequently mixes with water. The pH (alkalinity) of this material is harmful to aquatic life, refer to Section 12: Ecological information. Only water will evaporate from a spill of this compound. Prevent discharge into streams or sewer systems by covering drains and/or building containment devices around spill.

6.3 Methods for cleaning up a spill

In the uncured state the material is a viscous paste. Collect and place as much of the compound into a closed container for disposal. Compound is water soluble and may be diluted with water to aid in further clean-up. Compound will harden, if undiluted, in air. Hardening is accelerated with the application of heat. In the hardened state, scrape, chisel, or grind areas and collect the dry residue.

Refer to Section 13: Disposal considerations for information regarding disposal. In all cases, follow requirements in applicable local regulations.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Wear goggles and rubber gloves in situations where contact is possible. Avoid contact with eyes, skin, and clothing. Avoid generation of mist. Do not taste or swallow. Do not take internally. Wash thoroughly after handling. Wash contaminated clothing before reuse. Thoroughly clean shoes before reuse. Keep container closed. Promptly clean unwanted residue on surfaces with cloth dampened with water. Promptly clean up spills. Handle in accordance with good industrial hygiene and safety practice.

7.2 Precautions for safe storage

Keep container closed when not in use. Store separate from acids, reactive metals, and ammonium salts. Store at normal room temperatures. Store in clean steel or plastic containers. Do not store in aluminum, fiberglass, copper, brass, zinc or galvanized steel containers.

SECTION 8: Exposure controls/personal protection

8.1 General advice

Follow safe industrial hygiene practices and always wear protective equipment when handling this product. Protective equipment should meet recommended national standards. To avoid risk of ingestion, do not eat, drink, or smoke when exposure to the product is possible.

8.2 Engineering controls

Use with adequate ventilation. Keep containers closed. A safety shower and eyewash station should be within direct access.

8.3 Eye protection

Wear goggles in situations where contact is possible.

8.4 Protective gloves

Wear rubber gloves in situations where contact is possible. Check periodically during use that the gloves are still retaining their protective properties.

8.5 Respiratory protection

If compound is removed after being hardened and dust concentrations exceed recommended TLV, use properly fitted, air-purifying or air-fed respirator that is NIOSH/MSHA approved.

8.6 Exposure limits for dust

Sodium Silicate: 2 mg/m^3 (15 min TWA)

8.7 Ventilation

Ventilate to keep below TLV.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State:	Tan Paste
Specific Gravity at 20°C:	1.4
Odor/Odor Threshold:	No Specific Odor.
pH:	11.2
Vapor Pressure:	156 mmHg at 61.5 °C
Evaporation Rate (Water = 1):	No data available
Percent Volatile by Volume:	0 %.
Percent Solubility in Water:	50%
Boiling Point at 14.7 psi (760mmHg):	214-216 °F (101 – 102 °C)
Flash Point (°C**) and Method:**	No volatile organic content.
Explosion Properties:	No data available
Vapor Density:	No data available
Relative Density:	No data available
Partition Coefficient:	No data available
Auto-ignition Temperature:	No data available
Decomposition Temperature:	No data available
Viscosity:	No data available
Flammability:	No data available
Freezing Point:	32 ºF (0 ºC)

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is considered to be nonreactive under normal use.

10.2 Stability

Compound is stable when used in its recommended temperature range.

10.3 Conditions to be avoided

High temperature will cause a hardening effect that is intended per the use of product. There is no known effect on the material with exposure to light or shock.

10.4 Materials to avoid

The uncured compound turns to a gel and generates heat when mixed with acid. The compound may react with ammonium salts resulting in evolution of ammonia gas. The compound can react with sugar residues to form carbon monoxide.

10.5 Hazardous decomposition products

Compound may decompose when mixed with acids releasing silicic acid.

SECTION 11: Toxicological information

11.1 Primary routes of exposure

Skin and eye contact or ingestion are the possible routes for human exposure.

11.2 Effects of acute exposure

Eyes: Compound may cause irritation if not treated.
Skin: Compound may cause severe irritation on continued contact.
Ingestion: Irritation to mucous membranes of mouth, throat, esophagus, and gastrointestinal system are possible.
Chronic Health Effects: This compound has no known chronic effects. Repeated or prolonged exposure to this compound is not known to aggravate medical conditions.
Carcinogenicity: No structural alerts. NTP, IARC, ACGIH, and OSHA do not list this product as known or suspected carcinogen.
Mutagenicity: No evidence of genotoxicity. In vitro/in vivo negative.
Sensitization: Not sensitizing.
Reproductive Toxicity: No evidence of reproductive toxicity or developmental toxicity.

11.3 Acute toxicity

Information based on aqueous sodium silicate (compound contains up to 70% sodium silicate)
LD50 RAT (ORAL): 3400 mg/kg bw
LC50 RAT (INHALATION): >2.06 g/m³
LD50 RAT (DERMAL): >5000 mg/kg bw
STOT – single exposure - not classified
STOT – repeated exposure - not classified (NOAEL RAT (ORAL): >159 mg/kg bw/d)

11.4 Special Studies

Frequent ingestion over extended periods of time with gram quantities of silicates may be associated with the formation of kidney stones and other siliceous urinary calculi in humans.

SECTION 12: Ecological information

12.1 Possible environmental effects

Prevent discharges to streams or sewer systems.

12.2 Ecological toxicity

Information based on aqueous sodium silicate (compound contains up to than 70% sodium silicate)
LC50 (FISH): 1108 mg/L (Exposure Time: 96 h –Species: Brachydanio rerio)
EC50 (WATER FLEAS): 1700 mg/L (Exposure Time: 48 h –Species: Daphnia magna)

12.3 Mobility

Not applicable.

12.4 Persistence and degradability

This material is not persistent in aquatic systems. It is high in pH (when undiluted and/or not neutralized) which is acutely harmful to aquatic life. Diluted material rapidly de-polymerizes to yield dissolved silica (not distinguishable from natural dissolved silica). It does not contribute to BOD. This material does not bio-accumulate except in species that use silica as a structural material such as siliceous sponges and diatoms. The addition of excess dissolved silica over the limiting concentrations will not stimulate the growth of diatom populations. Neither silica nor sodium will appreciably bio-concentrate up the food chain.

12.5 Physical/Chemical

Compound sinks and subsequently mixes with water. Only water will evaporate from this material.

12.6 Other Adverse Effects

The alkalinity of this material will have a local effect on ecosystems sensitive to changes in pH.

SECTION 13: Disposal considerations

13.1 Waste disposal

Dispose in accordance with local, state and federal regulations. Dispose of hardened (cured) compound in an industrial waste facility or landfill having appropriate permits. Alternately, hardened (cured) compound may be disposed of in a waste incineration facility having proper permitting. Prevent discharges to streams or sewer systems.

13.2 Packaging/waste treatment methods

Recycle packaging or dispose of properly. Containers that cannot be cleaned shall be disposed of in the same manner as described in the waste disposal section.

13.3 Additional Information

No special precautions.

SECTION 14: Transport information

Special shipping information: Not specifically listed in the US hazardous materials shipping regulations (49cfr, table 172.101).

DOT (U.S.):

DOT Shipping Name:	Not regulated.
DOT Hazardous Class	Not applicable.
DOT UN Number:	Not applicable.
DOT Packing Group:	Not applicable.
DOT Reportable Quantity (lbs):	Not available.
Note:	No additional remark.
Marine Pollutant:	Not applicable.

CANADA Information for Sodium Silicate:

TDG (Canada):

TDG Shipping Name:	Not regulated.
Hazard Class:	Not applicable.
UN Number:	Not applicable.
Packing Group:	Not applicable.
Note:	No additional remark.
Marine Pollutant:	Not applicable.

EU Transportation Information for Sodium Silicate:

UN Number:	Not regulated.
UN proper shipping name:	Not applicable.
Transport Hazard Class:	Not applicable.
Packing Group:	Not applicable.
Environmental Hazards:	Not classified as a marine pollutant.
DOT UN Status:	Not applicable.
Special Precautions:	Unsuitable containers- Aluminum.

Overland (ADR/RID): None
Sea (IMDG): None
Air (ICAO/IATA): None

Transport in bulk according to ANNEX II of MARIPOL 73/78 and the IBC Code:
Not applicable

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture.

TSCA Inventory Status: Reported/Included.
AICS Inventory Status: Reported/Included.
DSL/NDSL Inventory Status: Reported/Included. SARA TITLE III: Not an Extremely Hazardous Substance under §302. Not a Toxic Chemical under §313. Hazard Categories under §§311/312: Acute

German Water Hazard Classification VwVwS: Product ID number 1314, WGK class 1 (low hazard to water).

15.2 Chemical Safety Assessment

Information available on request.

SECTION 16: Other information

NFPA hazards identification:
Health: 1 (slight)
Instability: 0 (minimal)
Flammability: 0
Special Hazards: None

HMIS hazards identification:
Health: 2 (slight)
Flammability: 0
Reactivity: 0 (minimal)
Personal Protection: (B) Refer to Section 8.

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Information Sources: Suppliers' material safety data sheets, CCOSH Cheminfo.
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Disclaimer:
Data is presented in good faith and is based on the present state of our knowledge. It is intended to describe the compound with regard to the appropriate safety precautions. This information is not intended to be a product specification. No warranty, either expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, users should review these recommendations in the specific context of the intended use and determine whether they are appropriate.