SECTION 1: IDENTIFICATION

1.1 Product Identifier

Product Name: High Performance Silicone Sealant.
Product Code: Not Available.

1.2 Recommended Use of Chemical & Restrictions on Use

Recommended Use: Used for making joints, sealing and gluing.
Restrictions on Use: Specially Formulated and Approved for the PalDuct Phenolic Pre-insulated Ductwork System.

Registration Numbers: These Polymers are not concerned by the EINECS Inventory. All the other constituents of this preparation are registered in the EINECS inventory. All the components of this preparation are registered in the TSCAI.

1.3 Details of the Supplier of the SDS

Head Office: PAL SYSTEM INTERNATIONAL FZCO, P.O Box 113826, Dubai Investment Park 2, Dubai, U.A.E
Tel: +971 4 889 1000
Email: info@palduct.us

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Potential Health Effects

Eye: Slight Eye Irritation: Signs / symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.
Skin: Causes mild skin irritation. Symptoms may include localized redness, swelling and itching.
Inhalation: Symptoms may include cough, sneezing, nasal discharge, headache, and nose and throat pain.
Ingestion: May cause gastrointestinal irritation if ingested. May cause abdominal pain, diarrhea, nausea and vomiting.
2.2 Additional Information

Environmental Effects: Presents no particular risk to the environment provided the disposal requirements (see Sec. 13) and national or local regulations are complied with.

Physical & Chemical Hazards

Fire or Explosion: Combustible.

Further Hazards: On contact with humidity, irritating vapors are released.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Mixtures

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS No</th>
<th>Wt/ %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polydimethysiloxanes, amorphous silica and cross linker.</td>
<td>4253-34-3 &amp; 176689-77-9</td>
<td>&lt; 5%</td>
</tr>
<tr>
<td>Components presenting hazards:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alkytricaetoxysilanes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>During use Acetic Acid is released</td>
<td>764-19-7</td>
<td></td>
</tr>
</tbody>
</table>

*The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of § 1910.1200.

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measure

Eye: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. Get immediate medical advice / attention.

Skin: In case of contact, immediately skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen and keep at rest in a position comfortable for breathing. Get medical attention if condition worsens.

Ingestion: If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get immediate medical advice / attention.

*The above first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.
SECTION 5: FIRE FIGHTING MEASURES

5.1 Extinguishing Media

Suitable Media: Dry chemical powder, CO2, foam and Water.
Unsuitable Media: Not available.

5.2 Special Hazards arising from the Product

Products of Combustion: May include, and are not limited to: oxides of carbon.
Flammability: Toxic and highly flammable gases are released (Explosions hazard) hazardous dust is released.

Explosion Data:

Sensitivity to Mechanical Impact: Not available.
Sensitivity to Static Discharge: Not available.

5.3 Special Protective Equipment & Precautions for Firefighters

Precautions: Cool down the containers / equipment exposed to heat with a water spray

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment & Emergency Procedures

Personal Protection: See Section 8.
Protective Equipment: Not available.
Emergency Procedures: Avoid contact with skin and eyes. Do not breathe vapors protective equipment. For further information refer to section 8. Mechancially ventilate the spillage area.

6.2 Methods & Materials for Containment & Cleaning Up

Method for Containment: This product does no present any particular risk for the environment.

Methods for Cleaning-Up: Scoop up material and place in a disposal container. Label the container. Provide adequate ventilation. Wash the functional surface with an appropriate self-emulsifying solvent. Wash eith water to reduce the risk of slipping. For disposal of solid materials, refer to section 13.

SECTION 7: HANDLING & STORAGE

7.1 Precautions for Safe Handling & Conditions for Safe Storage

Handling: Do not breathe gas / fumes / vapor / spray. Handle and open container with care. Use only in well-ventilated areas to prevent irritation due to fumes. During application and curing the product releases acetic acid. Wear protective gloves / protective clothing /
eye protection / face protection. When using do not eat or drink. Wash hands before eating, drinking or smoking. (See section 8)

**Storage:**
Keep container in well-ventilated area. Keep container tightly closed. Store out of direct sunlight, heat, and keep away from strong oxidizing agents, polyethylene liner in a metal drum varnished with Epitoke, polyethylene cartriges.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Exposure Guidelines - Occupational Exposure Limits

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>OSHA-PEL</th>
<th>ACGIH-TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetic Acid</td>
<td>Not available.</td>
<td>37 mg/m³ (15ppm)</td>
</tr>
</tbody>
</table>

### 8.2 Exposure Controls

**Engineering Controls:** Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits. Measure the concentration in the atmosphere.

### 8.3 Individual Protection Measures – Personal Protective Equipment (PPE)

**Personal Protective Equipment:**

- **Eye / Face Protection:** In absence of technical equipment that makes the workplace well aired, wear approved eye protection (properly fitted dust- or splash-proof chemical safety goggles) and face protection (face shield). An eye fountain should be provided on-site.

- **Skin Protection:**
  - **Hand Protection:** Wear chemical-resistant gloves made of rubber.
  - **Body Protection:** Not available.

- **Respiratory Protection:** In case of insufficient ventilation, wear suitable respiratory equipment with gas filter. 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.

- **General Health and Safety Measures:** Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking.

## SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

### 9.1 Information on Basic Physical & Chemical Properties

- **Appearance:** Paste.
- **Color:** Translucent or pigmented.
- **Odor:** Of vinegar.
- **Odor Threshold:** Not available.
Physical State: Thixotropic Paste.

pH: Not available.

Melting Point/Freezing Point: Not available.

Initial Boiling Point and Boiling Range: Not available.

Flash Point: > 150°C (>302°F)

Evaporation Rate: Not available.

Flammability: Not Flammable.

Lower Flammability/Explosive Limit: Not available.

Upper Flammability/Explosive Limit: Not available.

Vapor Pressure: Not available.

Vapor Density: Not available.

Relative Density/Specific Gravity: Approximately 1040 kg/m³ at 25 °C.

Solubility in water: Insoluble.

Solubility in organic solvents: Insoluble in acetone and alcohol. Dispersible (partial solubilisation) in petrol, white spirit, aromatic hydrocarbons (toluene, Zylene), chlorinated solvents

Partition coefficient: n-octanol/water: Not available.

Auto-ignition Temperature: Not available.

Decomposition Temperature: > 200 °C.

Viscosity: Not available.

Oxidizing Properties: Non oxidizing material according to EEC criteria.

Explosive Properties: Not available.

SECTION 10: STABILITY & REACTIVITY

Reactivity: None known.

Chemical Stability: Stable at room temperature provided it is not in contact with air. Vulcanizes at room temperature on contact with moisture in the air.

Conditions to Avoid: No dangerous reactions known under normal conditions of use.

Incompatible Materials: None known.

Hazardous Decomposition Products: During vulcanization, acetic acid is released. (Quantity potentially released: 2.4% of product weight). On combustion forms: Carbon oxides (CO + CO₂) (Silica).
SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Likely Routes of Exposure
Skin contact, eye contact, inhalation, and ingestion.

11.2 Symptoms Related to the Physical, Chemical & Toxicological Characteristics

Eye: May cause slight temporary irritation to ocular mucous membranes.

Skin: Repeated or prolonged contact may cause slight irritation to the skin.

Ingestion: May cause stomach distress, nausea or vomiting.

Inhalation: At high concentrations, the vapors can be irritating to the respiratory system.

11.3 Delayed, Immediate & Chronic Effects of Short & Long Term Exposure
Not available.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Effects on the aquatic environment: Acetic Acid:
EC 50 (Daphnia: Daphnia magna)/24h: 150mg/l
LC 50 (Fish: Princphales promelas)/96h: 88mg/l.

Persistence & Degradability: Not biodegradable.
Bioaccumulative Potential: Not bioaccumulable.
Mobility in Soil: Slightly soluble product, readily forms deposits.
Other Adverse Effects: Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods
This material must be disposed of in accordance with all local, state, provincial and federal regulations at a licensed waste collection point.

13.2 Contaminated Packaging

Decontamination / Cleaning: Separate the different packaging components and treat them separately.

Destruction / Disposal: Incinerate plastic packaging at a licensed installation. Entrust the uncontaminated packaging to a licensed waste contractor. Following decontamination, reuse or recycle metal packaging, disposable containers. Incinerate at a licensed installation.

NOTE: The user’s attention is drawn to the possible existence of local regulations.
SECTION 14: TRANSPORT INFORMATION

14.1 UN Number

DOT: Not regulated.
TDG: Not regulated.

14.2 UN Proper Shipping Name

DOT: Not applicable.
TDG: Not applicable.

14.3 Transport Hazard Class (ES)

DOT: Not applicable.
TDG: Not applicable.

14.4 Packing Group

DOT: Not applicable.
TDG: Not applicable.

14.5 Environmental Hazards

Not available.

14.6 Transport in Bulk According to Annex II of MARPOL 73/78 & the IBC Code

Not applicable.

14.7 Special Precautions for User

The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transport regulations for hazardous materials, it would be advisable to check their validity with your sales office.

SECTION 15: REGULATORY INFORMATION

15.1 Labelling

EEC Regulations: Mandatory labelling (self-classification) of hazardous preparations: N/A.

Note: The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user’s attention is drawn to the possible existence of additional provisions which complete these.
SECTION 16: OTHER INFORMATION

General

Date of Preparation: 11th May 2015
Date for Revision: 11th May 2015
Version No: 1.0
Prepared by: PAL SYSTEM INTERNATIONAL FZCO
Tel: +971 (0) 4 889 1000

Disclaimer

PAL SYSTEM INTERNATIONAL FZCO believes the information and recommendations herein to be accurate and reliable. However, since use conditions are not within its control, PAL SYSTEM INTERNATIONAL FZCO does not guarantee results from use of such products or other information herein and disclaims all liability from any resulting damage or loss. No warranty, express or implied, is given as to the merchantability, fitness for particular purpose, or otherwise with respect to the products referred to.

The information contained herein is given in good faith and is believed, by PAL SYSTEM INTERNATIONAL FZCO, to be reliable. The information however, is given without warranty or guarantee, express or implied, regarding its accuracy or correctness. The information applies to the product specifically described herein, as supplied, and may not be valid if the product used in combination with other materials, in particular materials not approved by PAL SYSTEM INTERNATIONAL FZCO. It remains the responsibility of the user of the product to satisfy itself as to the suitability and completeness of this information for the intended use of the product. PAL SYSTEM INTERNATIONAL FZCO shall not be liable or held accountable for any loss, damage or expense arising from misuse of the product, intentional, accidental or otherwise.