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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: PSX-D 80g JAR
Product type: Phase Change Thermal Interface Material (PCTIM)
Company address: Henkel Corporation, 15350 Barranca Parkway, Irvine, CA 92618
Item No.: PSX-D-80G / IDH No. 1118188
Region: United States
Contact Information: Telephone: 1.888.9.HENKEL (1.888.943.6595), Emergency Telephone: 860.571.5100, Internet: www.electronics.henkel.us

EXPORTATION OF THIS PRODUCT IS SUBJECT TO THE U.S. EXPORT ADMINISTRATION REGULATIONS. SEE SECTION 15 FOR DETAILS.

2. COMPOSITION/INFORMATION ON INGREDIENTS

Table with 5 columns: Hazardous components, %, ACGIH TLV, OSHA PEL, OTHER. Rows include Aluminum, Hydrocarbon co-oligomer, Petroleum Distillates, and Hydrocarbon waxes.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
HMIS: HEALTH: 1\*, FLAMMABILITY: 2, PHYSICAL HAZARD: 1, Personal Protection: See Section 8
CAUTION: COMBUSTIBLE LIQUID AND VAPOR. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE. MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.

Relevant routes of exposure: Skin, Inhalation, Eyes, Ingestion

Potential Health Effects

Inhalation: May cause respiratory tract irritation. Central nervous system depression, including dizziness, drowsiness, fatigue, nausea, headache, unconsciousness.
Skin contact: Mild skin irritation. Solvent action can dry and defat the skin, causing the skin to crack, leading to dermatitis.
Eye contact: Mild eye irritation. Pain and discomfort.
Ingestion: Harmful or fatal if swallowed. Aspirated material can enter lungs and cause damage. May cause gastrointestinal tract irritation if swallowed.

Existing conditions aggravated by exposure: Eye, skin, and respiratory disorders. Asthma.

See Section 11 for additional toxicological information.

#### 4. FIRST AID MEASURES

<b>Inhalation:</b>	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If symptoms develop and persist, get medical attention.
<b>Skin contact:</b>	Immediately flush skin with plenty of water (using soap, if available). Get medical attention if symptoms occur. Wash clothing before reuse. Thoroughly clean shoes before reuse.
<b>Eye contact:</b>	Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
<b>Ingestion:</b>	DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms develop and persist.

#### 5. FIRE-FIGHTING MEASURES

<b>Flash point:</b>	Greater than 61°C (142°F) (estimated)
<b>Autoignition temperature:</b>	335°C (635°F) (value for solvent).
<b>Flammable/Explosive limits-lower %:</b>	0.7 % (value for solvent).
<b>Flammable/Explosive limits-upper %:</b>	5.3 % (value for solvent).
<b>Extinguishing media:</b>	Water spray (fog), foam, dry chemical or carbon dioxide.
<b>Special fire fighting procedures:</b>	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. Use water spray to keep fire exposed containers cool.
<b>Unusual fire or explosion hazards:</b>	Vapors may accumulate in low or confined areas, travel considerable distance to source of ignition, and flash back. Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.
<b>Hazardous combustion products:</b>	Oxides of carbon. Oxides of nitrogen. Oxides of aluminum. Hydrocarbons. Aluminum reacts exothermically with water, acids, and alkalis to produce hydrogen.

#### 6. ACCIDENTAL RELEASE MEASURES

<b>Environmental precautions:</b>	Prevent product from entering drains or open waters.
<b>Clean-up methods:</b>	Ensure adequate ventilation. Wear suitable protective clothing, gloves and eye/face protection. Scrape up as much material as possible. Store in a closed container until ready for disposal.

#### 7. HANDLING AND STORAGE

<b>Handling:</b>	Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Do not taste or swallow. Do not breathe mist or vapors. Keep container closed. Wash thoroughly after handling. Use proper bonding and/or grounding procedures. Material can accumulate static charges which may cause an electrical spark.  Empty container precaution: Attention! This container can be hazardous when empty. Follow label cautions even after the container is empty since empty containers could retain product residues. Do not re-use empty containers for food, clothing, or products for human or animal consumption, or where skin contact can occur.
<b>Storage:</b>	Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.
<b>Incompatible products:</b>	Refer to Section 10.

For information on product shelf life contact Henkel Technical Service at 1.888.9.HENKEL (1.888.943.6535).

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Engineering controls:</b>	Use local exhaust ventilation to maintain airborne concentrations below established exposure limits.
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**Respiratory protection:** Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

**Skin protection:** Use impermeable gloves and protective clothing as necessary to prevent skin contact.

**Eye/face protection:** Safety goggles or safety glasses with side shields.

See Section 2 for exposure limits.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:** Liquid/paste  
**Color:** Metallic Grey  
**Odor:** None  
**Vapor pressure:** Not available  
**pH:** Not applicable  
**Boiling point/range:** Not available  
**Melting point/range:** Not available  
**Specific gravity:** 1.8  
**Vapor density:** Not available  
**Evaporation rate:** Less than 0.1  
**Solubility in water:** Negligible.  
**Partition coefficient (n-octanol/water):** Not available  
**VOC content:** 8.38%; 151 grams/liter (calculated)

## 10. STABILITY AND REACTIVITY

**Stability:** Stable under normal conditions of storage and use.

**Hazardous polymerization:** None under normal processing.

**Hazardous decomposition products:** Oxides of carbon. Oxides of nitrogen. Aluminum oxide. Hydrocarbons. Aluminum reacts exothermically with water, acids, and alkalis to produce hydrogen.

**Incompatibility:** Oxidizers. Acids. Alkalis. Halogenated compounds. Water.

**Conditions to avoid:** Storage with incompatible materials. Heat, flames, sparks and other sources of ignition. Exposure to sunlight.

## 11. TOXICOLOGICAL INFORMATION

### Carcinogen Status

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen
Aluminum 7429-90-5	No	No	No
Hydrocarbon co-oligomer Proprietary	No	No	No
Petroleum Distillates	No	No	No
Hydrocarbon waxes, petroleum, clay-treated microcryst 64742-42-3	No	No	No

### Literature Referenced Target Organ & Other Health Effects

Hazardous components	Health Effects/Target Organs
Aluminum 7429-90-5	Central nervous system, Irritant, Lung
Hydrocarbon co-oligomer Proprietary	No Target Organs
Petroleum Distillates	Irritant
Hydrocarbon waxes, petroleum, clay-treated microcryst 64742-42-3	No Records

## 12. ECOLOGICAL INFORMATION

**Ecological information:** Not available

## 13. DISPOSAL CONSIDERATIONS

**Information provided is for unused product only.**

**Recommended method of disposal:** Dispose of in accordance with Federal, State and local regulations. Empty containers must be handled with care due to product residue.

**EPA hazardous waste number:** Not a RCRA hazardous waste.

## 14. TRANSPORT INFORMATION

### U.S. Department of Transportation Ground (49 CFR):

**Proper shipping name:** Combustible liquids, n.o.s. ( Hydrotreated heavy naptha )  
**Hazard class or division:** Combustible liquid  
**Identification number:** NA 1993  
**Packing group:** III  
**Exceptions:** Unrestricted (Not more than 450 Liters)

### International Air Transportation (ICAO/IATA):

**Proper shipping name:** Not regulated  
**Hazard class or division:** None  
**Identification number:** None  
**Packing group:** None

### Water Transportation (IMO/IMDG):

**Proper shipping name:** Not regulated  
**Hazard class or division:** None  
**Identification number:** None  
**Packing group:** None

## 15. REGULATORY INFORMATION

### United States Regulatory Information

<b>TSCA 8 (b) Inventory Status:</b>	All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
<b>TSCA 12 (b) Export Notification:</b>	None.
<b>CERCLA/SARA Section 302 EHS:</b>	None.
<b>CERCLA/SARA Section 311/312:</b>	Immediate Health Hazard, Delayed Health Hazard, Fire
<b>CERCLA/SARA 313:</b>	This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Aluminum (CAS# 7429-90-5) (dust and fumes only).
<b>California Proposition 65:</b>	No California Proposition 65 listed chemicals are known to be present.
<b>Export Restrictions:</b>	This product (which contains spherical aluminum powder) is subject to the U.S. Export Administration Regulations and has been classified under Export Control Classification Number (ECCN) 1C992. Export, reexport, or other diversion of this product contrary to U.S. law is prohibited.

### Canada Regulatory Information

<b>CEPA DSL/NDSL Status:</b>	All components are listed on or are exempt from listing on the Domestic Substances List.
<b>WHMIS hazard class:</b>	B.3, D.2.A, D.2.B

## 16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: 9

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