

**PTM6000-SP****102245**

Version 1.2

Revision Date 08/27/2018

Print Date 02/20/2020

**SECTION 1. IDENTIFICATION**

Product name : PTM6000-SP

Number : 000000019753

Product Use Description : Thermal interface material

Manufacturer or supplier's details : Honeywell International Inc.  
115 Tabor Road  
Morris Plains, NJ 07950-2546

For more information call : 1-480-293-9800  
(Monday-Friday, 9:00am-5:00pm)

In case of emergency call : **Medical: 1-800-498-5701 or +1-303-389-1414**  
: **Transportation (CHEMTREC): 1-800-424-9300 or +1-703-527-3887**  
:  
: (24 hours/day, 7 days/week)

**SECTION 2. HAZARDS IDENTIFICATION****Emergency Overview**

Form : viscous liquid

Color : grey

Odor : slight

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**Classification of the substance or mixture**

Classification of the substance or mixture : Flammable liquids, Category 4

**GHS Label elements, including precautionary statements**

Signal word : Warning

Hazard statements : Combustible liquid.

Precautionary statements : **Prevention:**  
Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**  
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

**Storage:**  
Store in a well-ventilated place. Keep cool.

**Disposal:**  
Dispose of contents/ container to an approved waste disposal plant.

**Carcinogenicity**

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical nature : Mixture

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Chemical name	CAS-No.	Concentration
Aluminum	7429-90-5	70.00 - 95.00 %
Polymer	-	1.00 - 10.00 %
Proprietary ingredient	-	0.10 - 10.00 %
Proprietary ingredient	-	0.30 - 3.00 %
Solvent	-	0.00 - 15.00 %
Proprietary antioxidant	-	0.10 - 1.50 %
Proprietary ingredient	-	0.10 - 1.50 %
Proprietary ingredient	-	0.10 - 1.50 %
Proprietary ingredient	-	0.10 - 2.00 %
Proprietary ingredient	-	0.10 - 1.50 %

**SECTION 4. FIRST AID MEASURES**

General advice	: First aider needs to protect himself. Move out of dangerous area.
Inhalation	: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Use oxygen as required,

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provided a qualified operator is present. Call a physician.

- Skin contact : Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Call a physician if irritation develops or persists.
- Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician if irritation develops or persists.
- Ingestion : Do NOT induce vomiting. If a person vomits when lying on his back, place him in the recovery position. Immediate medical attention is required.

**Notes to physician**

- Indication of immediate medical attention and special treatment needed, if necessary : Treat symptomatically.

**SECTION 5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Dry chemical  
Carbon dioxide (CO<sub>2</sub>)  
Water spray
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : Combustible.  
Vapors may travel to areas away from work site before igniting/flashing back to vapor source.  
In case of fire hazardous decomposition products may be produced such as:  
Carbon monoxide  
Carbon dioxide (CO<sub>2</sub>)  
Aluminum oxides  
Silicon oxides

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Special protective equipment : Wear self-contained breathing apparatus and protective suit.  
for firefighters

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures : Wear personal protective equipment.  
Evacuate personnel to safe areas.  
Eliminate all ignition sources if safe to do so.  
Do not swallow.  
Avoid breathing vapours, mist or gas.  
Avoid contact with skin, eyes and clothing.

Environmental precautions : Should not be released into the environment.  
Prevent further leakage or spillage if safe to do so.

Methods and materials for containment and cleaning up : Ventilate the area.  
Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

**SECTION 7. HANDLING AND STORAGE****Handling**

Precautions for safe handling : Handle with care.  
Wear personal protective equipment.  
Do not swallow.  
Avoid breathing vapours, mist or gas.  
Avoid contact with skin, eyes and clothing.

Advice on protection against fire and explosion : Keep product and empty container away from heat and sources of ignition.  
Take precautionary measures against static discharges.  
No sparking tools should be used.  
No smoking.

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**Storage**

Conditions for safe storage, including any incompatibilities : Keep containers tightly closed in a dry, cool and well-ventilated place.  
Keep away from heat and sources of ignition.  
Keep away from direct sunlight.  
Protect from physical damage.  
Store away from incompatible substances.  
Container hazardous when empty.  
Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Protective measures : Ensure that eyewash stations and safety showers are close to the workstation location.

Engineering measures : Ensure adequate ventilation.

Eye protection : Safety glasses with side-shields  
For leak, spill or other emergency:  
Goggles or face shield, giving complete protection to eyes

Skin and body protection : Apron  
Protective suit  
If splashes are likely to occur, wear:  
Complete suit protecting against chemicals

Respiratory protection : No personal respiratory protective equipment normally required.  
In case of insufficient ventilation, wear suitable respiratory equipment.  
For leak, spill or other emergency:  
Wear self-contained breathing apparatus

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.  
When using, do not eat, drink or smoke.  
Wash hands before breaks and immediately after handling the product.

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Remove and wash contaminated clothing before re-use.  
 Keep working clothes separately.  
 Do not swallow.  
 Avoid breathing vapours, mist or gas.  
 Avoid contact with skin, eyes and clothing.

## Exposure Guidelines

Components	CAS-No.	Value	Control parameters	Update	Basis
Aluminum	7429-90-5	TWA : Time weighted average	1 mg/m3	2008	ACGIH:US. ACGIH Threshold Limit Values
Further information	:	Form of exposure : Respirable fraction.			

Aluminum	7429-90-5	PEL : Permissible exposure limit	15 mg/m3	02 2006	OSHA_TRANS:US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)
Further information	:	Form of exposure : Total dust. Expressed as : as Al			

Aluminum	7429-90-5	PEL : Permissible exposure limit	5 mg/m3	03 2016	OSHA_TRANS:US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)
Further information	:	Form of exposure : Respirable fraction. Expressed as : as Al			

Aluminum	7429-90-5	TWA : Time weighted average	5 mg/m3	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000)
Further	:	Form of exposure : Fume.			

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information	Expressed as : as Al
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Aluminum	7429-90-5	TWA : Time weighted average	15 mg/m3	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000)
Further information	:	Form of exposure : Total dust. Expressed as : as Al			

Aluminum	7429-90-5	TWA : Time weighted average	5 mg/m3	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000)
Further information	:	Form of exposure : Respirable dust. Expressed as : as Al			

Aluminum	7429-90-5	TWA : Time weighted average	5 mg/m3	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000)
Further information	:	Form of exposure : Pyrophoric powder. Expressed as : as Al			

Aluminum	7429-90-5	REL : Recomm ended exposure limit (REL):	10 mg/m3	2016	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards
Further information	:	Form of exposure : Total			



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Aluminum	7429-90-5	REL : Recomm ended exposure limit (REL):	5 mg/m3	2016	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards
Further information	:	Form of exposure : Respirable.			

Aluminum	7429-90-5	REL : Recomm ended exposure limit (REL):	5 mg/m3	2016	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards
Further information	:	Form of exposure : Welding fume or pyrophoric powder. Expressed as : as Al			

Aluminum	7429-90-5	TWA : Time weighted average	15 mg/m3	03 2016	Z3:US. OSHA Table Z-3 (29 CFR 1910.1000)
Further information	:	Form of exposure : Total dust.			

Aluminum	7429-90-5	TWA : Time weighted average	5 mg/m3	03 2016	Z3:US. OSHA Table Z-3 (29 CFR 1910.1000)
Further information	:	Form of exposure : Respirable fraction.			

Aluminum	7429-90-5	TWA : Time weighted average	50 millions of particles per cubic foot of air	03 2016	Z3:US. OSHA Table Z-3 (29 CFR 1910.1000)
Further information	:	Form of exposure : Total dust.			

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Aluminum	7429-90-5	TWA : Time weighted average	15 millions of particles per cubic foot of air	03 2016	Z3:US. OSHA Table Z-3 (29 CFR 1910.1000)
Further information	:	Form of exposure : Respirable fraction.			

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: viscous liquid
Color	: grey
Odor	: slight
pH	: Note: no data available
Melting point/range	: Note: no data available
Boiling point/boiling range	: Note: no data available
Flash point	: 145.8 °F (63.2 °C) Method: closed cup
Lower explosion limit	: Note: no data available
Upper explosion limit	: Note: Not applicable
Vapor pressure	: Note: no data available
Vapor density	: Note: no data available

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Density : Note: no data available

Water solubility : Note: no data available

Ignition temperature : Note: no data available

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Bulk density : Note: Not applicable

**SECTION 10. STABILITY AND REACTIVITY**

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : Hazardous polymerisation does not occur.

Conditions to avoid : Keep away from heat and sources of ignition.  
Keep away from direct sunlight.

Incompatible materials : Oxidizing agents  
Peroxides  
Chlorates, inorganic, n.o.s.  
Perchlorates  
permanganates, e.g. potassium permanganate  
Nitrates  
Reducing agents  
Acids

Hazardous decomposition products : In case of fire hazardous decomposition products may be produced such as:

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Carbon monoxide  
Carbon dioxide (CO<sub>2</sub>)  
Aluminum oxides  
Silicon oxides

Fire may cause evolution of:  
carbon oxides (CO, CO<sub>2</sub> ).  
Risk of formation of toxic pyrolysis products.

## SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg  
Method: Calculation method

Acute inhalation toxicity  
3,5-Bis(1,1-dimethylethyl)-4-  
hydroxybenzenepropanoic  
acid 2,2-bis[[3-[3,5-bis(1,1-  
dimethylethyl)-4-  
hydroxyphenyl]-1-  
oxopropoxy]methy

: LC50: > 46 mg/l  
Exposure time: 1 h  
Species: Rat

Acute dermal toxicity : Acute toxicity estimate: > 5,000 mg/kg  
Method: Calculation method

Skin irritation : Note: no data available

Eye irritation : Note: no data available

Sensitisation : Note: no data available

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Repeated dose toxicity : Note: no data available

Genotoxicity in vitro : Note: no data available

Genotoxicity in vivo : Note: no data available

Further information : Note: No data is available on the product itself.

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity effects**

Toxicity to fish : Note: no data available

Toxicity to daphnia and other aquatic invertebrates : Note: no data available

Toxicity to algae : Note: no data available

Toxicity to bacteria : Note: no data available

**Elimination information (persistence and degradability)**

Biodegradability : Note: no data available

**Further information on ecology**

Additional ecological information : We have no quantitative data concerning the ecological effects of this product.

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**SECTION 13. DISPOSAL CONSIDERATIONS**

Disposal methods : Observe all Federal, State, and Local Environmental regulations.

**SECTION 14. TRANSPORT INFORMATION**

**DOT** UN/ID No. : NA 1993  
Proper shipping name : Combustible liquid, n.o.s.  
Class CBL  
Packing group III  
Hazard Labels NONE  
Required only for US-DOT Bulk Shipments

**TDG** Not dangerous goods

**IATA** Not dangerous goods

**IMDG** Not dangerous goods

**SECTION 15. REGULATORY INFORMATION****Inventories**

US. Toxic Substances : On TSCA Inventory  
Control Act

Australia. Industrial : Not in compliance with the inventory  
Chemical (Notification and  
Assessment) Act

Canada. Canadian : This product contains one or several components listed in the  
Environmental Protection Canadian NDSL.  
Act (CEPA). Domestic  
Substances List (DSL)

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Japan. Kashin-Hou Law List : Not in compliance with the inventory

Korea. Existing Chemicals Inventory (KECI) : On the inventory, or in compliance with the inventory

Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act : Not in compliance with the inventory

China. Inventory of Existing Chemical Substances : Not in compliance with the inventory


New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand : On the inventory, or in compliance with the inventory

**National regulatory information**

**SARA 302 Components** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components** : The following components are subject to reporting levels established by SARA Title III, Section 313:  
: Aluminum 7429-90-5

**SARA 311/312 Hazards** : Fire Hazard

**California Prop. 65** :  **WARNING:** This product can expose you to chemicals, listed below, known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Formaldehyde	50-00-0
Ethylbenzene	100-41-4

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<b>Massachusetts RTK</b>	: Aluminum	7429-90-5
	: Formaldehyde	50-00-0
<b>New Jersey RTK</b>	: Aluminum	7429-90-5
<b>Pennsylvania RTK</b>	: Aluminum	7429-90-5

**SECTION 16. OTHER INFORMATION**

	<b>HMIS III</b>	<b>NFPA</b>
Health hazard	: 1	1
Flammability	: 2	2
Physical Hazard	: 0	
Instability	:	0

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

**Further information**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

Previous Issue Date: 04/08/2016

Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group