

PRECISION SURFACES INTERNATIONAL, INC.

922 Ashland Houston, TX 77008-6734

713-426-2220 Fax: 713-426-2223

SAFETY DATA SHEET

SECTION 1: IDENTIFICATION

Product Name: Permanent Diamond Suspension
Product Identifier: PSI-5xxMC-size PSI-5xxMC-PS
PSI-5xxPC-size PSI-5xxPC-PS xx= micron size
Supplier: Precision Surfaces International, Inc.
922 Ashland, Houston, TX 77008-6734
Emergency Telephone: Infotrac 800-535-5053
Recommended Use: Abrasive Lapping Slurry **Restrictions on use:** This material should not be used for any other purpose than the identified uses without expert advice. Improper use may cause potential health, safety, and environmental risks.

SECTION 2: Hazard(s) Identification

UN GHS

According to: UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

Classification of the substance or mixture

Specific/Target Organ Toxicity Repeated Exposure 2

Label Elements

Pictograms

Warning



Hazard Statements

May cause damage to organs through prolonged or repeated exposure via Ingestion/Oral.

Precautionary Statements

Prevention

Do not breathe dust, fume, gas, mist, vapours, and/or spray. Wear protective gloves, protective clothing, eye protection, and/or face protection.

Response

Get medical advice/attention if you feel unwell.

Storage/Disposal

Store in accordance with local, regional, national, and/or international regulations. Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Other Hazards

According to the Globally Harmonized System for Classification and Labeling (GHS) this product is considered hazardous.

SECTION 3: Composition/Information on Ingredients

Substances

Material does not meet the criteria of a substance.

Mixtures

| Composition | | | |
|-----------------|---|-------------|---|
| Ingredient | Identifiers | % by Weight | Classifications According to Regulation/Directive |
| Water | CAS: 7732-18-5 EC Number: 231-791-2 | 90 – 99 | UN GHS: |
| Ethylene glycol | CAS: 107-21-1 EC Number: 203-473-3 EU Index: 603-027-00-1 | 1 – 10 | UN GHS: Acute Tox. Oral 4: STOT RE 2 |
| Diamond | CAS: 7782-40-3 EC Number: 231-953-2 | 0.1 – 5 | UN GHS: |

This product does not contain any additional significantly hazardous material according to UN GHS. The composition of this product is proprietary.

Key to abbreviations

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

UN = United Nations

SECTION 4: First-aid Measures

Description of first aid measures

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if breathing is difficult. If not breathing, give artificial respiration. If signs/symptoms continue, get medical attention.

Skin Contact

IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash clothing before reuse.

Eye Contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion

Never give anything by mouth to an unconscious person. If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms and effects, both acute and delayed

Skin or eye irritation, stomach ache, nausea, dizziness, diarrhea, vomiting, or headache. Refer to Section 11 – Toxicological information.

Indication of any immediate medical attention and special treatment required

Notes to Physician

Treat symptomatically.

SECTION 5: Fire-fighting Measures

Suitable extinguishing media

LARGE FIRES: Water spray, fog or regular foam.

SMALL FIRES: Dry chemical, CO₂, water spray or regular foam.

Unsuitable Extinguishing Media

High pressure water stream.

Firefighting Procedures

Keep unauthorized personnel away.

LARGE FIRES: Do not scatter spilled material with high pressure water streams.

LARGE FIRES: Move containers from fire area if you can do it without risk. Stay upwind.

Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards

Some of these materials may burn, but none ignite readily.

Hazardous Composition Products

Oxides of carbon.

Advice for firefighters

Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where contact with substance is possible. Wear positive pressure self-contained breathing apparatus (SCBA).

SECTION 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal precautions

Do not walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate enclosed areas.

Emergency procedures

Keep unauthorized personnel away. Stay upwind. Ventilate closed spaces before entering.

Environmental precautions

LARGE SPILLS: Prevent entry into waterways, sewers, basements, or confined areas. Runoff from fire control or dilution water may cause pollution.

Methods and material for containment and cleaning up

Containment/Clean-up Measures

Use appropriate Personal Protective Equipment (PPE). Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements, or confined areas.

LARGE SPILLS: Dike far ahead of spill for later disposal.

SMALL SPILLS: Take up with sand or other non-combustible absorbent material and place into containers for later disposal.

Reference to other sections

Refer to Section 8 – Exposure Controls/Personal Protection and Section 13 – Disposal Considerations.

SECTION 7: Handling and Storage
Precautions for safe handling**Handling**

Use only with adequate ventilation or closed system ventilation. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Avoid breathing dust, fume, gas, mist, vapours, and/or spray. Use appropriate Personal Protective Equipment.

Conditions for safe storage including any incompatibilities**Storage**

Keep container tightly closed. Store in a cool, dry, well-ventilated place. Ventilate enclosed areas.

SECTION 8: Exposure Controls/Personal Protection
Control Parameters

| Exposure Limits/Guidelines | | | |
|----------------------------|------------|----------|--|
| Ingredient | C.A.S. No. | Result | ACGIH |
| Ethylene glycol | 107-21-1 | Ceilings | 100 mg/m ³ Ceiling (aerosol only) |

Exposure Controls**Engineering Measures/Controls**

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment (PPE)**Respiratory Protection**

In case of insufficient ventilations, wear suitable respiratory equipment. Respiratory protection required in misting environments. Respiratory protection required when this material is heated.

Eye/Face Protection

Wear chemical splash safety goggles.

Hand Protection

Wear protective gloves – single use PVC, latex, or nitrile gloves.

Skin/Body Protection

Wear long sleeves and/or protective coveralls.

General Industrial Hygiene

Avoid contact with skin, eyes, or clothing. Handle in accordance with good industrial hygiene and safety practice.

Environmental Exposure Controls

Prevent entry into waterways, sewers, basements, or confined areas.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

OSHA = Occupational Safety and Health Administration

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

SECTION 9: Physical and Chemical Properties

| | |
|---|-------------------------------|
| Physical State: | Liquid |
| Color: | Clear amber |
| Odor: | No data available |
| Odor Threshold: | No data available |
| pH: | 9 to 10 |
| Melting Point/Freezing Point: | < -10°C (< 14°F) |
| Boiling Point: | > 130°C (> 266°F) |
| Evaporation Rate: | No data available |
| Flash Point: | No data available |
| Flammability (solid, gas): | No data available |
| Flammable Limits (LEL): | No data available |
| Flammable Limits (UEL): | No data available |
| Vapor Pressure: | No data available; Negligible |
| Vapor Density: | No data available |
| Specific Gravity/Relative Density: | 1.05 to 1.2 Water=1 |
| Water Solubility: | Soluble |
| Solvent Solubility: | Insoluble |
| Viscosity | No data available |
| Autoignition Temperature: | No data available |
| Decomposition Temperature: | No data available |
| Octanol/Water Partition coefficient: | No data available |

SECTION 10: Stability and Reactivity

Reactivity

No dangerous reaction known under conditions of normal use.

Chemical Stability

Stable under normal temperatures and pressures.

Conditions to avoid

Keep at temperatures above freezing. Allowing freezing conditions may degrade product.

Possibility of hazardous reactions

Hazardous polymerization will not occur.

Incompatibility

No data available.

Hazardous Decomposition Products

Hazardous decomposition may occur during combustion, generating oxides of carbon.

| |
|--|
| SECTION 11: Toxicological Information |
|--|

Information on toxicological effects

| GHS Properties | Classification |
|-------------------------------|---|
| Respiratory sensitization | UN GHS – Classification criteria not met |
| Serious eye damage/irritation | UN GHS – Classification criteria not met |
| Acute toxicity | UN GHS – Acute Toxicity – Classification criteria not met; Acute Toxicity – Dermal – Classification criteria not met; Acute toxicity – Inhalation – Classification criteria not met; Acute Toxicity – Oral – Classification criteria not met |
| Aspiration Hazard | UN GHS – Classification criteria not met |
| Carcinogenicity | UN GHS – Classification criteria not met |
| Germ Cell Mutagenicity | UN GHS – Classification criteria not met |
| Skin corrosion/Irritation | UN GHS – Classification criteria not met |
| Skin sensitization | UN GHS – Classification criteria not met |
| STOT-RE | UN GHS – Specific Target Organ Toxicity Repeated Exposure 2 |
| STOT-SE | UN GHS – Classification criteria not met |
| Toxicity for Reproduction | UN GHS – Classification criteria not met |

Potential Health Effects**Inhalation**

Acute (Immediate) – Under normal conditions of use, no health effects are expected.

Chronic (Delayed) - Under normal conditions of use, no health effects are expected.

Skin

Acute (Immediate) – Under normal conditions of use, no health effects are expected.

Chronic (Delayed) - Under normal conditions of use, no health effects are expected.

Eye

Acute (Immediate) – Under normal conditions of use, no health effects are expected.

Chronic (Delayed) - Under normal conditions of use, no health effects are expected.

Ingestion

Acute (Immediate) – Swallowing large amounts may cause injury. Under normal conditions of use, no health effects are expected.

Chronic (Delayed) – Repeated and prolonged exposure may affect the kidneys. Symptoms may include but are not limited to weight loss, nausea, swelling of the arms and legs, vomiting, fatigue, headaches, decreased urine or urine that is mostly water, decreased mental sharpness, and muscle cramps and shakes. Repeated and prolonged exposure may cause gastrointestinal disturbances including diarrhea, nausea, and vomiting.

Carcinogenic Effects

No component of this material in amounts greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC, NTP, or OSHA.

Keys to abbreviations

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

OSHA = Occupational Safety and Health Administration

IARC = International Agency for Research on Cancer

UN = United Nations

NTP = National Toxicology Program

SECTION 12: Ecological Information**Toxicity**

This product is not expected to have toxic effects on aquatic life. It is recommended that necessary precautions be taken to prevent release of this material into sewers, streams, or bodies of water.

Persistence and degradability

This material is readily biodegradable.

Bioaccumulative potential

No indication of bio-accumulation potential.

Mobility in soil

No data available.

Results of PBT and vPvB assessment

The components of this material do not meet the criteria for classification as PBT or vPvB.

Other adverse effects**Ecological fate**

No data available.

SECTION 13: Disposal Considerations**Waste treatment methods****Product waste**

Dispose of contents/container in accordance with the local, regional, national, and international regulations.

Packaging waste

Dispose of contents/container in accordance with the local, regional, national, and international regulations.

SECTION 14: Transport Information

| | UN number | UN proper shipping name | Transport hazard class(es) | Packing group | Environmental hazards |
|-----------|-----------|-------------------------|----------------------------|---------------|-----------------------|
| DOT | NDA | Not Regulated | NDA | NDA | NDA |
| IMO/IMDG | NDA | Not Regulated | NDA | NDA | NDA |
| IATA/ICAO | NDA | Not Regulated | NDA | NDA | NDA |

Special precautions for user

None known.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

This product is provided only in non-bulk containers.

Other information

This material is not a regulated hazardous material with respect to the following transportation regulations: United States Department of Transportation (US DOT), International Air Transport Association (IATA), or International Maritime Dangerous Goods (IMDG).

| |
|---|
| SECTION 15: Regulatory Information |
|---|

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

| Inventory | | | |
|-----------------|-----------|------------|------|
| Component | C.A.S. No | Japan ENCS | TSCA |
| Diamond | 7782-40-3 | No | Yes |
| Ethylene glycol | 107-21-1 | Yes | Yes |
| Water | 7732-18-5 | No | Yes |

Japan**Labor****Japan – ISHL Dangerous Substances**

| | | |
|-----------------|-----------|------------|
| Water | 7732-18-5 | Not Listed |
| Diamond | 7782-40-3 | Not Listed |
| Ethylene glycol | 107-21-1 | Not listed |

Japan – ISHL Designated Carcinogens

| | | |
|-----------------|-----------|------------|
| Water | 7732-18-5 | Not Listed |
| Diamond | 7782-40-3 | Not Listed |
| Ethylene glycol | 107-21-1 | Not listed |

Japan – ISHL Harmful Substances Prohibited for Manufacture

| | | |
|-----------------|-----------|------------|
| Water | 7732-18-5 | Not Listed |
| Diamond | 7782-40-3 | Not Listed |
| Ethylene glycol | 107-21-1 | Not listed |

Japan – ISHL Harmful Substances Requiring Workers to Subject to Medical Exams

| | | |
|-----------------|-----------|------------|
| Water | 7732-18-5 | Not Listed |
| Diamond | 7782-40-3 | Not Listed |
| Ethylene glycol | 107-21-1 | Not listed |

Japan – ISHL Harmful Substances Subject to Obtaining Permission for Manufacturing

| | | |
|-----------------|-----------|------------|
| Water | 7732-18-5 | Not Listed |
| Diamond | 7782-40-3 | Not Listed |
| Ethylene glycol | 107-21-1 | Not listed |

Japan – ISHL Harmful Substances Whose Names Are to be Indicated on the Label

| | | |
|-----------------|-----------|-------------|
| Water | 7732-18-5 | Not Listed |
| Diamond | 7782-40-3 | Not Listed |
| Ethylene glycol | 107-21-1 | >=1% weight |

Japan – ISHL Prevention of Lead**Poisoning**

| | | |
|---------|-----------|------------|
| Water | 7732-18-5 | Not Listed |
| Diamond | 7782-40-3 | Not Listed |

| | | |
|-----------------|----------|------------|
| Ethylene glycol | 107-21-1 | Not listed |
|-----------------|----------|------------|

Japan – ISHL Mutagens – Existing Chemicals

| | | |
|-----------------|-----------|------------|
| Water | 7732-18-5 | Not Listed |
| Diamond | 7782-40-3 | Not Listed |
| Ethylene glycol | 107-21-1 | Not listed |

Japan – ISHL Mutagens – New Chemicals

| | | |
|-----------------|-----------|------------|
| Water | 7732-18-5 | Not Listed |
| Diamond | 7782-40-3 | Not Listed |
| Ethylene glycol | 107-21-1 | Not listed |

Japan – ISHL Notifiable Substances

| | | |
|-----------------|-----------|---------------------------------|
| Water | 7732-18-5 | Not Listed |
| Diamond | 7782-40-3 | Not Listed |
| Ethylene glycol | 107-21-1 | >=1% weight [Ordinance Table 2] |

Japan – ISHL Prevention of Organic Solvent Poisoning

| | | |
|-----------------|-----------|------------|
| Water | 7732-18-5 | Not Listed |
| Diamond | 7782-40-3 | Not Listed |
| Ethylene glycol | 107-21-1 | Not listed |

Environment

Japan – Pollutant Release Transfer Register (PRTR) – Class 1 Substances

| | | |
|-----------------|-----------|------------|
| Water | 7732-18-5 | Not Listed |
| Diamond | 7782-40-3 | Not Listed |
| Ethylene glycol | 107-21-1 | Not listed |

Japan – Pollutant Release Transfer Register (PRTR) – Class 2 Substances

| | | |
|-----------------|-----------|------------|
| Water | 7732-18-5 | Not Listed |
| Diamond | 7782-40-3 | Not Listed |
| Ethylene glycol | 107-21-1 | Not listed |

Inventory – Japan – Industrial Safety and Health Law Substances (ISHL)

| | | |
|-----------------|-----------|------------|
| Water | 7732-18-5 | Not Listed |
| Diamond | 7782-40-3 | Not Listed |
| Ethylene glycol | 107-21-1 | Not listed |

Other

Japan – Chemical Substance Control Law (CSCL) – Examined Existing Chemical Substances

| | | |
|-----------------|-----------|-----------------------|
| Water | 7732-18-5 | Not Listed |
| Diamond | 7782-40-3 | Not Listed |
| Ethylene glycol | 107-21-1 | Readily biodegradable |

Japan – Fire Service Law – Hazardous Materials

| | | |
|---------|-----------|------------|
| Water | 7732-18-5 | Not Listed |
| Diamond | 7782-40-3 | Not Listed |

| | | |
|-----------------|----------|---|
| Ethylene glycol | 107-21-1 | Group 4 – Flammable liquids III (listed under 3 rd Class petroleums – soluble) |
|-----------------|----------|---|

Japan – Chemical Substance Control Law (CSCL) – Monitoring Chemical Substances

| | | |
|-----------------|-----------|------------|
| Water | 7732-18-5 | Not Listed |
| Diamond | 7782-40-3 | Not Listed |
| Ethylene glycol | 107-21-1 | Not listed |

Japan – Poisonous and Deleterious Substances

| | | |
|-----------------|-----------|------------|
| Water | 7732-18-5 | Not Listed |
| Diamond | 7782-40-3 | Not Listed |
| Ethylene glycol | 107-21-1 | Not listed |

Japan – Chemical Substance Control Law (CSCL) – Specified Chemical Substances

| | | |
|-----------------|-----------|------------|
| Water | 7732-18-5 | Not Listed |
| Diamond | 7782-40-3 | Not Listed |
| Ethylene glycol | 107-21-1 | Not listed |

Japan – Poisonous and Deleterious Substances – Substances Not Considered Deleterious

| | | |
|-----------------|-----------|------------|
| Water | 7732-18-5 | Not Listed |
| Diamond | 7782-40-3 | Not Listed |
| Ethylene glycol | 107-21-1 | Not listed |

Japan – Poisonous and Deleterious Substances – Substances Not Considered Poisonous

| | | |
|-----------------|-----------|------------|
| Water | 7732-18-5 | Not Listed |
| Diamond | 7782-40-3 | Not Listed |
| Ethylene glycol | 107-21-1 | Not listed |

SECTION 16: Other Information

Relevant Phrases (code & full text)

H303 – May be harmful if swallowed

H373 – May cause damage to organs through prolonged or repeated exposure.

P260 – Do not breathe dust, fume, gas, mist, vapours and/or spray.

P280 – Wear protective gloves, protective clothing, eye protection, and face protection.

P314 – Get medical advice/attention if you feel unwell.

P401 – Store in accordance with local, regional, national, and/or international regulations.

P501 – Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

The above information and recommendation are believed to be accurate and reliable. However, no warranty, either expressed or implied, is made as to its accuracy or completeness and none is made as to fitness of this material for any purpose. The manufacturer or supplier shall not be liable for damages to person or property resulting from its use. Nothing herein shall be construed as a recommendation for use in violation of any patent.

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