

MATERIAL SAFETY DATA SHEET

NFPA RATING: Health = 2 Flammability = 2 Reactivity = 0

HMIS RATING: Health = 2 Flammability = 2 Reactivity = 0

SECTION I -- IDENTITY AND MANUFACTURER'S INFORMATION

(502N-24D)

Manufacturer's Name: HILLYARD INDUSTRIES

Product Name: P.W.C. (Parts Washer Cleaner)

Address: 302 North Fourth Street

Date Prepared: December 5, 2002

St. Joseph, MO 64501

Prepared by: Regulatory Affairs Department

Emergency Telephone No.: (800) 424-9300 (Only in the event of chemical emergency involving a spill, leak, fire, exposure or accident involving chemicals.)

Other information calls: (816) 233-1321 (Ext. 8285)

<http://www.hillyard.com>

SECTION II -- INGREDIENTS/IDENTITY INFORMATION

Components

(Specific Chemical Identity:

Common Name(s)	CAS#	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED	%
Petroleum Distillates	64742-47-8 & 64742-88-7	100 ppm*	100 ppm*	Not applicable	87-92%
d-Limonene	5989-27-5	Not established	Not established	Not applicable	8-12%
Dipropylene glycol methyl ether	34590-94-8	Not established	Not established	Not applicable	---

* Not established for this CAS #; use Stoddard solvent CAS #8052-41-3 for PEL and TLV. CAS #8052-41-3 is regulated by OSHA and the following states: FL, IL, LA, MA, NJ, PA, RI.

V. O. C. (concentrate) = 783 gm/L. or 99.8%; V.O.C. (min. dilution) = 99.8%.

SECTION III -- PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point: 300°F corrected	Specific Gravity (H₂O = 1): 25°C = 0.785 & 39°C = 0.88
Vapor Pressure (mm Hg): 0.96	Percent Volatile by Volume (%): 99.88%
Vapor Density (AIR = 1): 5.26	Evaporation Rate (ethyl ether = 1): slower than 1
Solubility in Water: negligible	Appearance and Odor: Clear, colorless liquid; mild citrus odor

SECTION IV -- FIRE AND EXPLOSION HAZARD DATA

Flash point: 140°F (T.C.C.) average **Flammable Limits:** LEL = 1% UEL = N/A-mixture

Extinguishing Media: Carbon dioxide, dry chemical foam. Use NFPA Class B Extinguishers.

Special Fire Fighting Procedures: Treat as any petroleum solvent fire. Avoid spreading liquid and fire by water. Wear full protective equipment including self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: Keep container closed and isolated from heat, electrical equipment, sparks and flame. Never weld or use cutting torch on or near package.

SECTION V -- PHYSICAL HAZARDS

Stability: Stable **Conditions to Avoid:** Elevated temperatures

Incompatibility (Materials to Avoid): Avoid contact with strong acids and strong oxidizing agents.

Hazardous Decomposition Products or Byproducts: None under normal conditions. Thermal decomposition may produce organic acids, carbon dioxide and carbon monoxide.

Hazardous Polymerization: Will not occur **Conditions to Avoid:** N/A

SECTION VI -- HEALTH HAZARD DATA

Routes of entry: Inhalation? Yes Skin? Yes Ingestion? Yes

HEALTH HAZARDS (1. Acute and 2. Chronic)

1. Was not considered to be a primary skin irritant per FHSA. Was not considered to be an eye irritant per the FHSA. Prolonged contact may cause eye or skin irritation. May cause allergic skin reaction. Was estimated to have an LD50 of greater than 5 gm./Kg. Aspiration hazard if swallowed. Can enter lungs and cause damage. Persons with pre-existing skin disorders may be more susceptible to the effects of this material. Breathing high concentrations of vapors or mists may cause irritation of the nose, throat, and signs of nervous system depression (e.g., headache, drowsiness, dizziness, loss of coordination, and fatigue). Inhalation of fine mist was not acutely toxic to 10 test subjects following a 1 hr. exposure at a nominal concentration of 36.3067 mg./L. (actual concentration = 4.2743 mg./L). This concentration was the maximum that could be generated with this test system. Ingestion toxicity is greater than 5 g./kg. Ingestion of excessive quantities may cause irritation of the digestive tract and signs of nervous system depression (e.g., headache, drowsiness, dizziness, loss of coordination, and fatigue). Aspiration Hazard - This material can enter lungs during swallowing or vomiting and cause lung inflammation and damage. D-Limonene has demonstrated limited evidence of carcinogenicity in laboratory animals. However, this effect appears to be unique to the male rat and has not been demonstrated in other species. The relevance of these findings to humans is uncertain. It has not been identified as a carcinogen by NTP, IARC, or OSHA. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage (sometimes referred to as Solvent or Painters' Syndrome). Intentional misuse by deliberately concentrating and inhaling this product may be harmful or fatal. 2. None known to Hillyard Industries Inc.

Chemical listed as Carcinogen or Potential Carcinogen:

National Toxicology Program = No **I.A.R.C. Monographs** = No **OSHA** = No

This product has no carcinogens listed by IARC, NTP, NIOSH, or ACGIH as of this date, greater than or equal to 0.1%.

Signs and Symptoms of Exposure: Prolonged contact causes eye and skin irritation. May cause nose and throat irritation. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Vapor harmful - overexposure may affect the brain or nervous system causing dizziness, headache or nausea.

Medical Conditions Generally Aggravated by Exposure: Skin problems such as industrial dermatitis. Individuals with chronic respiratory disorders such as asthma, chronic bronchitis, emphysema, etc., may be adversely affected by exposure to any vapor or airborne particulate matter.

SECTION VI -- HEALTH HAZARD DATA continued

Emergency and First Aid Procedures: If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately. In case of contact, immediately flush eyes and skin with plenty of water for at least 15-20 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean contaminated shoes. If swallowed, do not induce vomiting. Call physician or Poison Control Center immediately.

SECTION VII -- PRECAUTIONS FOR SAFE HANDLING AND USE

Steps To Be Taken In Case Material Is Released Or Spilled: Absorb large spills; DO NOT use clay. Small spills should be flushed with water and pick up with mop.

Waste Disposal Method: Dispose of in accordance with state or local regulations.

EPA Hazardous Waste Classification: Not normally an EPA hazardous waste; however, conditions of use of this product may change it to meet the hazardous waste definition. If other solvents are added and the flash point goes below 140 degrees it would become an ignitable waste. Recycle or incinerate in approved facility; do not incinerate closed container.

Precautions To Be Taken In Handling And Storing: Keep container closed when not in use. Since empty packages retain product residue, follow label warnings even after package is empty.

Other Precautions: Do not dispose of in storm drains or streams. This product contains no reportable quantities of toxic chemicals subject to reporting requirements of Section 313 of SARA Title III Emergency Planning and Community Right to Know Act of 1986 and 40 CFR Part 372. **USE ONLY WITH ADEQUATE VENTILATION.** Do not breathe vapors or spray mist. **Ensure fresh air entry during application and drying.** If you experience eye watering, headache, or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during and after application. Follow respirator manufacturer's directions for respirator use.

SECTION VIII -- CONTROL MEASURES

Respiratory Protection (Specify Type): Not normally required with adequate ventilation.

Ventilation:

Local Exhaust = Normally adequate **Mechanical (General)** = Recommended **Special** = N/A **Other** = N/A

Protective Gloves: Impervious gloves such as neoprene or rubber. **Eye Protection:** Splash goggles or approved eye protection to safeguard against potential eye contact, irritation or injury is recommended.

Other Protective Clothing or Equipment: Handle as a combustible liquid. When splashing is a concern use protective clothing, eye wash and safety shower.

Work / Hygienic Practices: Avoid contact with eyes, skin, and clothing. Animal studies of similar solvents suggest that slight anemia, adaptive liver changes, and kidney toxicity (male rat nephropathy) may be caused by repeated overexposure to some similar solvents. The significance to this to humans is unknown. Wash thoroughly after handling; wash clothing before reuse.

SECTION IX - TRANSPORTATION INFORMATION

Applicable regulations: CFR = no IMCO = yes IATA = yes

Proper shipping name for air & foreign water: FLAMMABLE LIQUID N.O.S. (PETROLEUM DISTILLATE), 3, UN1993, III

Proper shipping name for highway: Cleaning compound

UN No.: not applicable for highway in 119 gallon package or less **Limited Qty.:** not applicable

Hazard class: not applicable for highway in 119 gallon package or less

Labels required: not required for highway in 119 gallon package or less **DOT Exception:** not applicable

EPA Hazardous waste characteristics:

Ignitability = not applicable (in original sealed package); **Corrosivity** = not applicable; **Reactivity** = not applicable

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