

## MATERIAL SAFETY DATA SHEET

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

HMIS RATING: Health = 1/2 Flammability = 2 Reactivity = 0

## SECTION I -- IDENTITY AND MANUFACTURER'S INFORMATION

(0981A)

Manufacturer's Name: HILLYARD INDUSTRIES

Product Name: 450 GYM FINISH

Address: 302 North Fourth Street

Date Prepared: July 9, 2003

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 distillate (Stoddard Solvent) <sup>(1)</sup>	8052-41-3	100 ppm	100 ppm	N/A	25-30
Aliphatic hydrocarbon petroleum naphtha	64742-47-8	100 ppm*	100 ppm*	N/A	12-17
Petroleum distillate	64742-95-6	100 ppm*	100 ppm*	N/A	1-5
Urethane alkyd resin	68514-58-9	not established	not established	N/A	---
Uralkyd resin (NJ & PA trade secret)	41-0177680-5000345P	not established	not established	N/A	---

(1) Regulated by OSHA and the following states: FL, IL, LA, MA, NJ, PA, RI

\* Not established for this CAS #; use Stoddard solvent (CAS #8052-41-3) for PEL and TLV.

V.O.C. = Less than 450 gm./l.; V.O.S. = 3.69 lbs./gal.

## SECTION III -- PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point: 335°F

Specific Gravity (H<sub>2</sub>O = 1): 25°C = 0.89 & 39°C = 0.89

Vapor Pressure (mm Hg.): 2.8

Percent Volatile by Volume (%): 59.7

Vapor Density (AIR = 1): 4.8

Evaporation Rate (ethyl ether = 1): slower than 1

Solubility in Water: negligible

Appearance and Odor: Clear, light amber liquid; mineral spirit odor

## SECTION IV -- FIRE AND EXPLOSION HAZARD DATA

Flash point: 100°F min. (Tag Closed Cup)

Flammable Limits: LEL = 0.9 UEL = no data

Extinguishing Media: Flammable Class II: Use foam, carbon dioxide, dry chemical fire fighting apparatus.

Special Fire Fighting Procedures: Full protective equipment including self-contained breathing apparatus. Water may be used to cool containers to prevent possible pressure buildup and autoignition or explosion when exposed to extreme heat. Notify authorities if liquid enters sewer and public waters. Dike fire control water for later disposal (see Section VII).

Unusual Fire and Explosion Hazards: Keep container closed and isolated from heat, electrical equipment, sparks and flame. Liquid runoff to sewers may create fire/explosion hazard. Vapors may accumulate in confined spaces such as sewers, pits or sumps or inadequately ventilated areas. Heat or fire may cause container to explode. 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: When exposed to fire, produces organic acids, carbon monoxide and carbon dioxide.

Hazardous Polymerization: Will not occur

Conditions to Avoid: None known to Hillyard

## SECTION VI -- HEALTH HAZARD DATA

Routes of entry: Inhalation? Yes Skin? Yes Ingestion? No

## HEALTH HAZARDS (1. Acute and 2. Chronic)

1. Causes skin, nose and throat irritation. Product is primary skin irritant per Federal Hazardous Substance Act, Code of Federal Regulations 15, chapter IIc, paragraph 1500.41. It is not an eye irritant per FHSA, CFR 15, chapter. IIc, paragraph 1500.42.

2. May cause defatting of skin and dermatitis. Prolonged contact with skin may produce skin corrosion. Harmful if inhaled. Chronic overexposure leads to central nervous system depression and permanent brain and nervous system damage.

Chemical listed as Carcinogen or Potential Carcinogen:

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

## SECTION VI -- HEALTH HAZARD DATA cont.

**Signs and Symptoms of Exposure:** Excess inhalation may irritate nose and throat. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea; however, product did not induce mortality following oral administration at 5.0 g/kg.

**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. Acute inhalation studies of product at 17.1 mg/l. for 1 hour produced no abnormalities.

**Emergency and First Aid Procedures:** In case of contact, immediately flush eyes and skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean contaminated shoes. If affected by inhalation of vapor, remove to fresh air. If swallowed get medical attention; consult a 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:** Eliminate sources of ignition (flames, hot surfaces; electric, static or friction sparks); ventilate area; avoid breathing of vapors; absorb with floor dry or similar inert material. Sweep or scrape up and put in appropriate container. Do not let spilled or leaking material enter watercourse. Notify authorities if liquid enters nearby water intakes. Notify local health and wildlife officials. Do not smoke when working with product.

**Waste Disposal Method:** Dispose of in accordance with local, county, state and federal regulations. Incinerate regulated quantities in approved facility; do not incinerate closed container.

**Precautions To Be Taken In Handling And Storing:** Keep container closed when not in use. Empty container may retain hazardous residue and explosive vapors; do not pressurize, cut, weld, braze, solder, drill or grind on or near container. Follow label warnings until container is thoroughly cleaned or destroyed.

**Other Precautions:** USE WITH ADEQUATE VENTILATION. Avoid breathing vapors or spray mist. Open windows and doors, use exhaust fans or other means to insure fresh air entry during application and drying. Refer to OSHA Standard 29 CFR 1910.94 for technical guidelines on keeping air contamination below acceptable exposure limits. Avoid contact with eyes, skin and clothing. Do not take internally. This product contains no reportable quantities of toxic chemicals subject to reporting requirements of EPA Sec. 313 of SARA Title III Emergency Planning and Community Right to Know Act of 1986 and 40 Code of Federal Regulations - Part 372.

## SECTION VIII -- CONTROL MEASURES

**Respiratory Protection (Specify Type):** Wear appropriate, properly fitted respirator (NIOSH or MSHA approved) unless air monitoring demonstrates vapor or mist levels are below applicable limits.

**Ventilation:** At least 10 air chgs./hr. recommended

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

**Protective Gloves:** Impervious rubber gloves    **Eye Protection:** None required

**Other Protective Clothing or Equipment:** Non-absorbent protective clothing. If you experience eye watering, headache or dizziness, increase fresh air, wear respiratory protection or leave the area.

**Work / Hygienic Practices:** Wash thoroughly after handling.

## SECTION IX - TRANSPORTATION INFORMATION

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

**Proper shipping name for air and foreign water:** Paint, 3, UN1263, III

**Proper shipping name for highway:** Varnish;

**UN No.:** not applicable for highway    **Limited Qty.:** not applicable    **Hazard class:** not applicable for highway

**Labels required:** not required for highway    **DOT Exception:** not applicable

**EPA Hazardous waste characteristics:** Ignitability = yes; Corrosivity = not applicable; Reactivity = not applicable.

### DISCLAIMER OF WARRANTIES

**NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OF ANY NATURE ARE MADE WITH RESPECT TO THE PRODUCT(S) OR INFORMATION CONTAINED IN THIS MATERIAL SAFETY DATA SHEET.**

The information and recommendations contained in this Material Safety Data Sheet are supplied pursuant to 29 CFR 1910.1200 of the Occupational Safety and Health Standards Hazard Communication Rule. All information contained herein is presented in good faith and is believed to be appropriate and accurate.

**THE BUYER OR USER ASSUMES ALL RISKS ASSOCIATED WITH THE USE, MISUSE OR DISPOSAL OF THIS PRODUCT. THE BUYER OR USER IS RESPONSIBLE TO COMPLY WITH ALL FEDERAL, STATE OR LOCAL REGULATIONS CONCERNING THE USE, MISUSE OR DISPOSAL OF THESE PRODUCTS.**

# HILLYARD 450 GYM FINISH

*The High-Solids, VOC Compliant Gym Finish*

## **Durable And VOC Compliant**

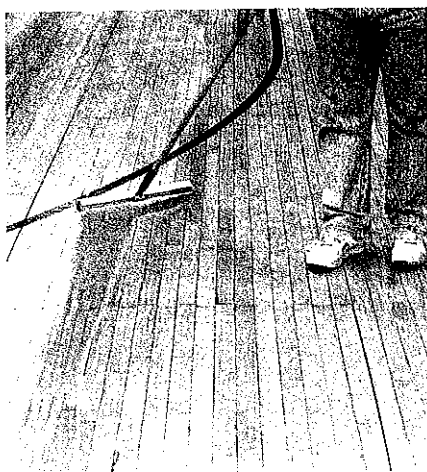
Hillyard 450 Gym Finish is a durable, high-solids, urethane wood gym finish that has been specially formulated to meet the strict VOC (Volatile Organic Compounds) requirements established in many parts of the country. The VOC value for 450 Gym Finish is less than 450 grams per liter, making it an excellent choice for compliance with the National AIM VOC Rule.


## **Easy To Apply With No Mixing**

450 Gym Finish is easy to apply using conventional lambswool applicators, Hillyard Power-Flo,<sup>®</sup> or weighted T-Bar applicators. It is compatible over a wide variety of conventional solvent based and water based coatings, provided these coatings are cured, bonded, and the floor is properly prepared. There is no mixing necessary... 450 Gym Finish comes ready to use. Each gallon covers an average of 500-600 square feet per gallon, and comes conveniently packaged in one and five gallon containers.

## **Slip Resistant...MFMA Approved**

Like all quality Hillyard gymnasium finishes, Hillyard's 450 Gym Finish is classified by Underwriters Laboratories, Inc.<sup>®</sup> as to slip resistance, 186S. Plus, 450 Gym Finish is approved by the Maple Flooring Manufacturers Association (MFMA), the exclusively recognized source of technical information on hard maple flooring. If you are looking for a durable, VOC compliant wood gym finish, ask your Hillyard consultant about the benefits of 450 Gym Finish. Just another leading example of wood gym floor maintenance innovation and high quality from Hillyard.



**HILLYARD**  
  
**FIRST IN GYM FINISHES<sup>®</sup>**

# HILLYARD 450 GYM FINISH

**A CLEAR URETHANE ESTER VARNISH FOR WOOD SPORTS FLOORS**

**READY TO USE — DO NOT THIN**

Approved by the Maple Flooring Manufacturers Association

**DIRECTIONS**

**PREPARATION: NEW OR FRESHLY SANDED WOOD:** Proper floor preparation and adherence to label directions are critical for successful results. After the floor has been sealed and game lines painted, abrade entire floor with maroon pads (250 sq. ft. per side of pad). Tack the floor with Hillyard Tack-It™. Allow floor to dry one hour.

**SCRUB AND RE-COAT:** Scrub with 2 oz. of Hillyard Super Shine-All per gallon of water using #120 grit screen disc (500 sq. ft. per side of disc) under a single brush floor machine (use a white pad between the pad holder and the disc). Pick up the solution with a wet vacuum and damp mop. Rinse twice with clean water. Work small areas and do not flood floor. Allow the floor to dry overnight. Tack the floor with terry cloth towels dampened with Tack-It. Allow floor to dry one hour. If you choose to dry screen the floor, be sure to sweep, vacuum, and tack until the floor is completely dust free.

**APPLICATION:** Before applying 450 Gym Finish, tack the floor a final time with a cleaning cloth similar to Hillyard Item CH1415. Apply finish at a coverage rate of 500-600 square feet per gallon with a lambswool applicator, Power-Flo, or Hillyard weighted T-Bar applicator. Avoid leaving puddles of finish on floor. If a second coat is to be applied, allow the finish to dry at least 24 hours, abrade entire floor with maroon pads, and tack with Tack-It. If finish dries longer than 48 hours, abrade with discs (150-100 grit depending on how long the finish has dried). Apply the final coat. Do not use floor for at least 72 hours and wait one week for scheduled activities. **NOTE: Turn on the exhaust system two to four hours after each application of 450 Gym Finish. If after abrading, the floor sits for longer than 24 hours before being coated, re-abrade and tack before applying additional seal or finish coats to prevent peeling from occurring. If Court Guard is used as the seal coat, it must be abraded with maroon pads immediately prior to application of finish coats.**

**PAINT:** Prior to re-coating, use Hillyard Gym Line Paint following label directions to touch up game lines. Worn areas should be patched in with 450 prior to re-coating the entire floor.

**MAINTENANCE:** Dust mop daily with Hillyard Super Hi-Tone, Hi-Mist, or Hi-Treat. Clean badly soiled floors with Super Shine-All. Refer to the Hillyard First in Wood Gym Floor Care Manual for complete details on care.

**NOTICE:** Best results are obtained with adequate ventilation and floor temperatures above 60°F (16°C) and below 95°F (35°C). Avoid direct drafts on floor while finishing. Do not store partially full containers of material for long periods of time. Do not pour unused material back into container. Empty containers may retain hazardous residue and explosive vapors. Keep away from heat, sparks, and flames. Do not cut, puncture, or weld on or near this container. Follow label warnings until container is thoroughly cleaned or destroyed.

**DISPOSAL:** Buyer assumes all risk and liability associated with disposal of this product (original concentration or dilution) in violation of applicable law.

**FLOOR COATING AND FINISHING MATERIAL AS TO SLIP RESISTANCE ONLY. 186S**

**DISCLAIMER OF WARRANTY**

Seller makes no warranty of any kind, express or implied, except that this product shall be of seller's standard quality.

**V.O.C. COMPLIANT. MEETS WITH STRICT CLEAN AIR REQUIREMENTS:**

**V.O.C. = Less than 450 gm/l.; V.O.S. = 3.69 lbs./gal. — HMIS Rating: Health = 2, Flammability = 2, Reactivity = 0**

## WARNING

**HARMFUL IF INHALED - CAUSES NOSE AND THROAT IRRITATION - EYE IRRITANT  
MAY CAUSE SKIN IRRITATION - COMBUSTIBLE**

**CONTAINS:** PETROLEUM DISTILLATES (CAS #8052-41-3, CAS #64742-88-7 and CAS #64741-65-7); URETHANE RESINS (CAS #68514-58-9, CAS TRADE SECRET #41-0177680-5000345P).

**NOTICE:** Reports have associated repeated and prolonged occupational overexposure to solvent with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Keep away from heat and flame. Prevent build-up of vapors by opening all windows and doors to achieve cross-ventilation. **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. Close container after each use. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Keep away from heat and flame. Do not take internally. For skin wear impervious rubber gloves and protective clothing.

**FIRST AID:** 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 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 immediately.

**SPILL AND WASTE:** Remove all sources of ignition. Ventilate and remove with inert absorbent. Incinerate in approved facility. Do not incinerate closed container. In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations.

**See Material Safety Data Sheet for additional information.**

0103

**KEEP OUT OF REACH OF CHILDREN**

## TECHNICAL DATA

**PHYSICAL PROPERTIES:**

1. Clarity .....	Clear
2. Nonvolatile matter, minimum .....	50%
3. Viscosity, Gardner, 25°C .....	A - C
4. Flash point T.C.C. (minimum) .....	100°F
5. Gardner color (typical) .....	5
(Maximum) .....	12
6. Dry film color .....	Does not darken wood
7. Packaging stability -	
Sediment .....	None
Suspended matter .....	None
Resistance to skinning .....	No skinning
8. Drying properties -	
Set to touch .....	Less than 3 hours

Dry hard .....	Overnight
Tack at 24 hours .....	None
9. Adhesion when recoated (after 24 hours) .....	Good
10. Maintenance properties -	
Accepts line marking paints .....	Passes
Will overcoat line marking paints .....	Passes
11. Weight/gallon, 25°C .....	7.44 lbs. (3.37 kg.)
12. Odor .....	Petroleum distillates
13. Volatile organic compounds .....	Less than 450 grams per liter

**TEST METHODS:**

- 1. - 10. Use the current test methods of the Maple Flooring Manufacturers Association for gymnasium finishes.
- 11. ASTM D1475

