

MSDS

Material Safety Data Sheet

Permabond
Engineering Adhesives

PERMABOND® QFS 16

READ MATERIAL SAFETY DATA SHEET BEFORE HANDLING PRODUCT!

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER	
PRODUCT NAME	PERMABOND® QFS 16
-MANUFACTURER-	-SUPPLIER-
PERMABOND LLC	PERMABOND LLC
14 Robinson Street	14 Robinson Street
Pottstown, PA 19464	Pottstown, PA 19464
USA	USA
1-800-640-7599	1-800-640-7599
Emergency Telephone:866-827-6282	Emergency Telephone:866-827-6282
(US, Canada)	(US, Canada)
Chemtrec: 800-424-9300 (US - 24hrs)	Chemtrec: 800-424-9300 (US - 24hrs)
Chemtrec International: 703-527-3887	Chemtrec International: 703-527-3887
SYNONYMS	None

2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL FAMILY	Accelerator/Activator	CAS NUMBER	CONCENTRATION (%)
COMPONENT		142-82-5	60 - 100
n-Heptane			

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

EXTREMELY FLAMMABLE.
EYE IRRITANT. SKIN IRRITANT.
Colorless Liquid Pungent odor

EYE	Will cause eye irritation.
SKIN CONTACT	Repeated or prolonged contact may cause defatting of the skin resulting in dryness, cracking and dermatitis. Repeated and/or prolonged contact may cause irritation and skin sensitisation.
INHALATION	Atmospheric concentrations in excess of the occupational exposure limit may lead to headache, nausea, and irritation of the eyes, nose and throat.
INGESTION	Ingestion may cause irritation of the gastrointestinal tract. Aspiration of the product into the lungs following ingestion may cause pulmonary injury leading to pneumonitis.

4. FIRST-AID MEASURES

EYE	Immediately irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 10 minutes. Obtain immediate medical attention.
SKIN CONTACT	Wash skin with soap and water. Remove grossly contaminated clothing, including shoes, and launder before re-use. Discard shoes. If symptoms (irritation or blistering) persist obtain medical attention.
INHALATION	Remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Get medical attention.
INGESTION	DO NOT induce vomiting. If individual is conscious, give milk or water to dilute stomach contents. Keep warm and quiet. Get prompt medical attention.

MSDS

Material Safety Data Sheet

Permabond®
Engineering Adhesives

PERMABOND® QFS 16

READ MATERIAL SAFETY DATA SHEET BEFORE HANDLING PRODUCT!

5. FIREFIGHTING MEASURES

AUTOIGNITION	None Established
FLASH POINT	< 20 ∞F (Setaflash Closed Tester)
EXTINGUISHING MEDIA	CO2; Dry Chemical; Foam; Water Fog
SPECIAL FIREFIGHTING PROCEDURES	Fire fighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes.; Cool exposed equipment with water spray.
FIRE & EXPLOSION HAZARDS	The vapor is heavier than air and may travel a considerable distance to a source of ignition and flashback. Combustion will evolve toxic and irritant vapors.
HAZARDOUS COMBUSTION PRODUCTS	Carbon monoxide, carbon dioxide, unknown hydrocarbons.
LOWER EXPLOSION LIMIT (%)	1.0
UPPER EXPLOSION LIMIT (%)	7.0
FLAMMABILITY HAZARD CLASS	4 = Extreme.

6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK PROCEDURES	Evacuate immediate area and dike area to contain spill. Extinguish open flames and ignition sources in the immediate area. Wear proper protective clothing, gloves, and splash goggles. Absorb as much of spilled material as possible with rags, sand, vermiculite or other absorbent material. Scrape absorbed material into designated waste containers. Wash area thoroughly with detergent and rinse, taking care to prevent runoff into drains or other waterways. All spilled material, absorbed waste and wash water must be disposed of in accordance with all Federal state and local regulations.
---------------------------	--

For safety and environmental precautions, please review entire Material Safety Data Sheet for necessary information.

7. HANDLING AND STORAGE

STORAGE TEMPERATURE	<= 27 ∞C <= 80 ∞F
HANDLING/STORAGE	Store in a cool, dry area away from heat, sparks or fire. Keep material refrigerated at the storage temperature referenced above.
SENSITIVITY TO STATIC ELECTRICITY	Yes
SENSITIVITY TO MECHANICAL IMPACT	No
OTHER PRECAUTIONS	Ground containers securely when transferring contents. Wear low static or properly grounded shoes.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT	EXPOSURE LIMITS	
n-Heptane	ACGIH-STEL: 500 ppm ACGIH-TWA: 400 ppm	OSHA-PEL: 400 ppm OSHA-STEL: 500 ppm

MSDS
Material Safety Data Sheet
PERMABOND® QFS 16

Permabond®
Engineering Adhesives

READ MATERIAL SAFETY DATA SHEET BEFORE HANDLING PRODUCT!

8. EXPOSURE CONTROLS/PERSONAL PROTECTION – CONT'D

VENTILATION REQUIREMENTS	Local. Explosion-proof exhaust ventilation.
EYE PROTECTION REQUIREMENTS	Goggles.
GLOVE REQUIREMENTS	Impervious neoprene or rubber gloves are recommended.
CLOTHING REQUIREMENTS	Standard industrial hygiene procedures should be practiced.
CHANGE/REMOVAL OF CLOTHING	Remove contaminated clothing and launder before reuse.
WASH REQUIREMENTS	Wash before eating, drinking, or using toilet facilities.
RESPIRATOR REQUIREMENTS	Avoid prolonged or repeated breathing of vapor or mists. If exposure may or does exceed occupational exposure limits, use a NIOSH approved respirator to prevent overexposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

PURE SUBSTANCE OR MIXTURE	Mixture
PHYSICAL FORM	Liquid
COLOR	Colorless
ODOR	Pungent
ODOR THRESHOLD	None Established
MOLECULAR WEIGHT	Not applicable
PH AS IS	Not applicable
pH IN (1%) SOLUTION	Not applicable
OXIDIZING PROPERTIES	Not applicable
BOILING POINT	201 ∞F
MELTING/FREEZING POINT	None Established
SOLUBILITY IN WATER	Insoluble
PARTITION COEFFICIENT (n-octanol/water)	None Established
SPECIFIC GRAVITY (WATER=1)	0.732
BULK DENSITY	6.7 lb/gal
EVAPORATION RATE	5.8 (n-Butyl Acetate = 1)
VAPOR PRESSURE (mmHg)	50 @ 25∞C
VAPOR DENSITY (air = 1)	3.4
VOLATILES	99.1 %/wt
VOLATILE ORGANIC COMPOUNDS	6.6 lb/gal
AUTOIGNITION	None Established
FLASH POINT	< 20 ∞F (Setaflash Closed Tester)

10. STABILITY AND REACTIVITY

STABILITY	Stable
MATERIALS TO AVOID	Strong oxidizers, Acids, Bases
REACTIVITY HAZARD CLASS	0 = Stable
HAZARDOUS DECOMPOSITION PRODUCTS	Thermal decomposition could produce carbon monoxide, carbon dioxide, and unidentified organic compounds.

MSDS
Material Safety Data Sheet
PERMABOND® QFS 16

Permabond®
Engineering Adhesives

READ MATERIAL SAFETY DATA SHEET BEFORE HANDLING PRODUCT!

11. TOXICOLOGICAL INFORMATION

ROUTE OF ENTRY	Inhalation; Ingestion; Skin Contact; Eye Contact	
CHRONIC (LONG TERM) EFFECTS OF EXPOSURE		
TARGET ORGANS	Central nervous system; Respiratory system; Peripheral nervous system	
CARCINOGEN	No.	
COMPONENT	ORAL TOXICITY	NOTES ON ORAL TOXICITY
n-Heptane		Low oral toxicity. Aspiration of the product into the lungs following ingestion may cause pulmonary injury leading to pneumonitis.
COMPONENT	DERMAL TOXICITY	NOTES ON DERMAL TOXICITY
n-Heptane		Repeated and/or prolonged contact may cause irritation and skin sensitisation. Corrosive, causes permanent skin damage. Repeated or prolonged contact may cause defatting of the skin resulting in dryness, cracking and dermatitis.
COMPONENT	INHALATION TOXICITY	NOTES ON INHALATION TOXICITY
n-Heptane		Vapor, if generated, can cause irritation of the eyes, nose and respiratory tract. Avoid breathing vapors or mists.
COMPONENT		NOTES ON EYE IRRITATION
n-Heptane		Irritating, but does not injure eye tissue.

12. ECOLOGICAL INFORMATION

POTENTIAL TO BIOACCUMULATE	Unknown.
AQUATIC TOXICITY	None Established

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS	Disposal should be in accordance with local, state or national legislation.
EMPTY CONTAINER WARNINGS	Empty containers may contain product residue; follow MSDS and label warnings even after they have been emptied.

14. TRANSPORTATION INFORMATION

DOT CLASSIFICATION	
PROPER SHIPPING NAME	HEPTANES
HAZARD CLASS	3
U.N. NUMBER	UN1206
PACKING GROUP	II
ICAO/IATA CLASSIFICATION	
PROPER SHIPPING NAME	HEPTANES
HAZARD CLASS	3
U.N. NUMBER	UN1206
PACKING GROUP	II

MSDS
Material Safety Data Sheet
PERMABOND® QFS 16

Permabond®
Engineering Adhesives

READ MATERIAL SAFETY DATA SHEET BEFORE HANDLING PRODUCT!

IMO/IMDG CLASSIFICATION

PROPER SHIPPING NAME	HEPTANES
HAZARD CLASS	3.2
U.N. NUMBER	UN1206
PACKING GROUP	II

The information provided herein may not include the impact of additional regulatory requirements (eg, for materials meeting the definition of a hazardous waste under RCRA, hazardous substances under CERCLA, and/of marine pollutants under CWA or other similar federal, state or local laws) or any associated exceptions or exemptions under regulations applicable to the transport of this material.

15. REGULATORY INFORMATION

USA
TSCA

All components are on the TSCA inventory.

SARA/TITLE III

Contains no substances at or above the reporting threshold under Section 313.

CAS NUMBER

CONCENTRATION (%)

16. OTHER INFORMATION

MSDS DATE
FOR INFORMATION CONTACT:

January 1, 2004
Permabond LLC
20C World's Fair Drive
Somerset, NJ 08873
USA 732-868-1372
Emergency Telephone:866-827-6282
(US, Canada)
Chemtrec: 800-424-9300 (US - 24hrs)
Chemtrec International: 703-527-3887

ADDITIONAL INFORMATION: The information given and the recommendations made herein apply to our product(s) alone and are not combined with other product(s). Such are based on our research and on data from other reliable sources and are believed to be accurate. No guaranty of accuracy is made. It is the purchaser's responsibility before using any product to verify this data under their own operating conditions and to determine whether the product is suitable for their purposes.