

Permabond®

Engineering Adhesives

SAFETY DATA SHEET

Permabond QFS16

1. Identification

Product identifier

Product name Permabond QFS16

Recommended use of the chemical and restrictions on use

Application Accelerator

Details of the supplier of the safety data sheet

Supplier Permabond LLC
14 Robinson Street
Pottstown, PA 19464
USA
Telephone: 732-868-1372 or 800-640-7599
Website: www.permabond.com

Emergency telephone number

Emergency telephone Medical: Poison Control Center 866-827-6282 (toll free) or 303-389-1109 Transport: CHEMTREC 800-424-9300

2. Hazard(s) identification

Classification of the substance or mixture

OSHA Regulatory Status Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Communication and Labeling of Chemicals (GHS).

Physical hazards Flam. Liq. 2 - H225

Health hazards Muta. 1B - H340 Carc. 1B - H350 STOT RE 2 - H373 Asp. Tox. 1 - H304

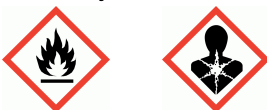
Human health In high concentrations, vapors and spray mists are narcotic and may cause headache, fatigue, dizziness and nausea. Irritating to eyes. Repeated exposure may cause skin dryness or cracking.

Environmental Very toxic to aquatic life with long lasting effects.

Physicochemical The product is highly flammable, and explosive vapors/air mixtures may be formed even at normal room temperatures.

Label elements

Hazard symbols



Signal word Danger

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Hazard statements	<p>H225 Highly flammable liquid and vapor.</p> <p>H340 May cause genetic defects.</p> <p>H350 May cause cancer.</p> <p>H373 May cause damage to organs through prolonged or repeated exposure.</p> <p>H304 May be fatal if swallowed and enters airways.</p>
Precautionary statements	<p>P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.</p> <p>P240 Ground/ bond container and receiving equipment.</p> <p>P241 Use explosion-proof electrical equipment.</p> <p>P242 Use only non-sparking tools.</p> <p>P243 Take precautionary measures against static discharge.</p> <p>P260 Do not breathe vapor/ spray.</p> <p>P261 Avoid breathing vapor/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P273 Avoid release to the environment.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P301+P310 If swallowed: Immediately call a poison center/ doctor.</p> <p>P302+P352 If on skin: Wash with plenty of water.</p> <p>P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.</p> <p>P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.</p> <p>P312 Call a poison center/ doctor if you feel unwell.</p> <p>P314 Get medical advice/ attention if you feel unwell.</p> <p>P331 Do NOT induce vomiting.</p> <p>P332+P313 If skin irritation occurs: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.</p> <p>P391 Collect spillage.</p> <p>P403+P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P403+P235 Store in a well-ventilated place. Keep cool.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
Contains	N,N-DIMETHYL-PARA-TOLUIDINE

3. Composition/information on ingredients

Mixtures

<p>NAPHTHA (PETROLEUM), HYDROTREATED LIGHT; LOW BOILING POINT HYDROGEN</p> <p>CAS number: 64742-49-0</p>	<p>60-100%</p>
<p>Classification</p> <p>Muta. 1B - H340</p> <p>Carc. 1B - H350</p> <p>Asp. Tox. 1 - H304</p>	

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N,N-DIMETHYL-PARA-TOLUIDINE	1-5%
CAS number: 99-97-8	
Classification	
Acute Tox. 3 - H301	
Acute Tox. 3 - H311	
Acute Tox. 3 - H331	
STOT RE 2 - H373	
Not relevant.	

The full text for all hazard statements is displayed in Section 16.

4. First-aid measures

Description of first aid measures

Inhalation	Move affected person to fresh air at once. If breathing stops, provide artificial respiration. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention if any discomfort continues.
Ingestion	Do not induce vomiting. Get medical attention.
Skin Contact	Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.
Eye contact	Remove any contact lenses and open eyelids wide apart. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

Most important symptoms and effects, both acute and delayed

General information	Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.
Inhalation	Vapours may cause drowsiness and dizziness.
Ingestion	Aspiration hazard if swallowed.
Skin contact	Prolonged contact may cause redness, irritation and dry skin.

Indication of immediate medical attention and special treatment needed

Notes for the doctor	DO NOT induce vomiting if swallowed chemical is dissolved in petroleum-based material. Danger of aspiration and development of chemical pneumonia.
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5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	Foam, carbon dioxide or dry powder.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Specific hazards	The product is flammable. Heating may generate flammable vapors. Vapors are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back.
Hazardous combustion products	Burning produces irritating, toxic and obnoxious fumes. Carbon monoxide, carbon dioxide, and unknown hydrocarbons.

Advice for firefighters

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Protective actions during firefighting Containers close to fire should be removed or cooled with water.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet. Remove or isolate all sources of ignition. Provide adequate ventilation.

Environmental precautions

Environmental precautions Avoid the spillage or runoff entering drains, sewers or watercourses.

Methods and material for containment and cleaning up

Methods for cleaning up Absorb in vermiculite, dry sand or earth and place into containers. Transfer to suitable, labelled containers for disposal.

Reference to other sections For personal protection, see Section 8. For waste disposal, see section 13.

7. Handling and storage

Precautions for safe handling

Usage precautions Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. During application and drying, solvent vapors will be emitted. Avoid contact with skin and eyes. Use in a well ventilated area.

Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Storage class Flammable liquid storage.

Specific end uses(s)

Specific end use(s) Primer.

8. Exposure controls/Personal protection

Exposure controls

Protective equipment



Appropriate engineering controls Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection The following protection should be worn: Chemical splash goggles or face shield.

Hand protection It is recommended that chemical-resistant, impervious gloves are worn. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.

Other skin and body protection Use engineering controls to reduce air contamination to permissible exposure level. Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapor contact. Provide eyewash station and safety shower. Uniforms, coveralls, or a lab coat should be worn

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Hygiene measures	Wash at the end of each work shift and before eating, smoking and using the toilet. Use of good industrial hygiene practices is required.
Respiratory protection	Use NIOSH approved respirator if there is potential to exceed exposure limit(s). A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Liquid.
Color	Clear.
Odor	Characteristic.
Odor threshold	Not available.
pH	Not relevant.
Melting point	Not available.
Initial boiling point and range	96.1-98.9°C/205-210°F
Flash point	-2°C/28.4°F
Evaporation rate	Not determined. 2.7 (diethyl ether = 1)
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 1.1 % Upper flammable/explosive limit: 6.7 %
Vapor pressure	35 mm Hg @ 20°C/68°F
Vapor density	3.45
Relative density	0.68 @ 23.9°C/75°F
Solubility(ies)	Insoluble in water.
Partition coefficient	Not determined.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Explosive properties	Not determined.
Oxidizing properties	Not available.
Volatile organic compound	This product contains a maximum VOC content of 99.9 %. This product contains a maximum VOC content of 680 g/l. Estimated value.

10. Stability and reactivity

Reactivity	The following materials may react with the product: Strong oxidizing agents.
Stability	Stable at normal ambient temperatures and when used as recommended.
Possibility of hazardous reactions	There are no known reactivity hazards associated with this product.
Conditions to avoid	Avoid heat, flames and other sources of ignition.
Materials to avoid	Acids. Strong oxidizing agents.

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Hazardous decomposition products No data available.

11. Toxicological information

Information on toxicological effects

Toxicological effects The toxicological properties of this product have not been fully evaluated. Do not ingest or inhale. Avoid direct contact with skin or eyes.

Skin corrosion/irritation

Skin corrosion/irritation Irritating to skin.

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met.

Respiratory sensitization

Respiratory sensitization Based on available data the classification criteria are not met.

Skin sensitization

Skin sensitization Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Genotoxicity - in vivo Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity No component of this product present at levels great than or equal to 0.1% is identified as a known carcinogen.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure May cause central nervous system disorder (e.g. narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage.

Target organs Central nervous system

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Defatting, drying and cracking of skin.

Target organs Skin

Aspiration hazard

Aspiration hazard Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.

Inhalation In high concentrations, vapors may irritate throat and respiratory system and cause coughing. Vapors have a narcotic effect.

Ingestion May be harmful if swallowed and enters airways.

Skin Contact Repeated exposure may cause skin dryness or cracking. May cause sensitisation by skin contact.

Eye contact Irritating and may cause redness and pain.

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Acute and chronic health hazards Central nervous system 16.0 Irritant.

Route of exposure Inhalation Ingestion Skin and/or eye contact

Toxicological information on ingredients.

N,N-DIMETHYL-PARA-TOLUIDINE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 139.0

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,000.0

Species Rabbit

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 3.19

Skin corrosion/irritation

Animal data Method: OECD 404, Rabbit Moderately irritating.

Serious eye damage/irritation

Serious eye damage/irritation Method: OECD 405, Rabbit Moderately irritating.

Skin sensitization

Skin sensitization Not sensitizing.

Germ cell mutagenicity

Genotoxicity - in vitro Ames test This substance has no evidence of mutagenic properties.

Carcinogenicity

Carcinogenicity No information available.

Reproductive toxicity

Reproductive toxicity - fertility Two-generation study - LOEL 72.977 mg/kg/day, , Rat F2

Specific target organ toxicity - single exposure

STOT - single exposure No information available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

Aspiration hazard Not available.

12. Ecological information

Ecotoxicity Very toxic to aquatic life with long lasting effects.

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Toxicity	No information available.
<u>Persistence and degradability</u>	
Persistence and degradability	The product is readily biodegradable.
<u>Bioaccumulative potential</u>	
Bio-Accumulative Potential	Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.
Partition coefficient	Not determined.
<u>Mobility in soil</u>	
Mobility	The product contains organic solvents which will evaporate easily from all surfaces.
<u>Other adverse effects</u>	
Other adverse effects	None known.

13. Disposal considerations

Waste treatment methods

General information	Dispose of according to Federal, State/Provincial and local regulations. Refer to section 8 before handling. Empty containers may contain product residue; follow SDS and label warnings even after they have been emptied.
Disposal methods	Absorb in vermiculite, dry sand or earth and place into containers. Dispose of waste via a licensed waste disposal contractor. Containers should be thoroughly emptied before disposal because of the risk of an explosion.

14. Transport information

UN Number

UN No. (International)	1206
UN No. (DOT)	UN1206

UN proper shipping name

Proper shipping name (IMDG)	HEPTANES
Proper shipping name (ICAO)	HEPTANES
Proper shipping name (DOT)	HEPTANES

Transport hazard class(es)

Transport Labels (International)	3
DOT hazard class	3

Transport labels



Packing group

Packing group (International)	II
DOT packing group	II

Environmental hazards

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Environmentally Hazardous Substance



15. Regulatory information

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None above reporting limits

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

None above reporting limits

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None above reporting limits

SARA 313 Emission Reporting

None above reporting limits

SARA (311/312) Hazard Categories

Acute
Chronic
Fire

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

This product contains a chemical known to the state of California to cause cancer.

Inventories

Canada - DSL/NDSL

All the ingredients are listed or exempt.
Domestic Substance List

US - TSCA

All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification

None above reporting limits

16. Other information

Classification abbreviations and acronyms	Flam. Liq. = Flammable liquid Eye Irrit. = Eye irritation Skin Irrit. = Skin irritation STOT SE = Specific target organ toxicity-single exposure Asp. Tox. = Aspiration hazard
Revision date	3/12/2021
Revision	3
Supersedes date	10/2/2019

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Hazard statements in full

H225 Highly flammable liquid and vapor.
H301 Toxic if swallowed.
H304 May be fatal if swallowed and enters airways.
H311 Toxic in contact with skin.
H315 Causes skin irritation.
H331 Toxic if inhaled.
H336 May cause drowsiness or dizziness.
H340 May cause genetic defects.
H350 May cause cancer.
H373 May cause damage to organs through prolonged or repeated exposure.

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.