

# Permabond®

## Engineering Adhesives

### SAFETY DATA SHEET

#### Permabond 737

#### 1. Identification

##### Product identifier

**Product name** Permabond 737

##### Recommended use of the chemical and restrictions on use

**Application** Adhesive.

##### 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 Classification and Labeling of Chemicals (GHS).

**Physical hazards** Flam. Liq. 4 - H227

**Health hazards** Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 Carc. 2 - H351 STOT SE 3 - H335

##### Label elements

##### Pictogram



##### Signal word

Warning

##### Hazard statements

H227 Combustible liquid.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
H351 Suspected of causing cancer.

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### Precautionary statements

P201 Obtain special instructions before use.  
 P202 Do not handle until all safety precautions have been read and understood.  
 P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.  
 P261 Avoid breathing vapor/ spray.  
 P264 Wash contaminated skin thoroughly after handling.  
 P271 Use only outdoors or in a well-ventilated area.  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
 P302+P352 If on skin: Wash with plenty of water.  
 P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.  
 P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P308+P313 If exposed or concerned: Get medical advice/ attention.  
 P312 Call a poison center/ doctor if you feel unwell.  
 P332+P313 If skin irritation occurs: Get medical advice/ attention.  
 P337+P313 If eye irritation persists: Get medical advice/ attention.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.  
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
 P403+P235 Store in a well-ventilated place. Keep cool.  
 P405 Store locked up.  
 Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

### Contains

ETHYL 2-CYANOACRYLATE, CARBON BLACK

### Other hazards

None under normal conditions.

### 3. Composition/information on ingredients

#### Mixtures

<b>ETHYL 2-CYANOACRYLATE</b>	<b>60-100%</b>
CAS number: 7085-85-0	
<b>Classification</b>	
Flam. Liq. 4 - H227	
Skin Irrit. 2 - H315	
Eye Irrit. 2A - H319	
STOT SE 3 - H335	
<b>CARBON BLACK</b>	<b>1-5%</b>
CAS number: 1333-86-4	
<b>Classification</b>	
Carc. 2 - H351	

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<b>HYDROQUINONE</b>	<b>&lt;1%</b>
CAS number: 123-31-9	
<b>Classification</b>	
Acute Tox. 4 - H302	
Eye Dam. 1 - H318	
Skin Sens. 1 - H317	
Muta. 2 - H341	
Carc. 2 - H351	
Not relevant.	

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

**Composition comments**            Exact percentage is a trade secret. Concentration range is provided to assist users in providing appropriate protections.

### 4. First-aid measures

#### Description of first aid measures

<b>Inhalation</b>	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If symptoms develop and persist, get medical attention.
<b>Ingestion</b>	On contact, immediate bonding of mouth could occur. Do not induce vomiting. Get medical attention.
<b>Skin Contact</b>	On contact, immediate bonding of the skin will occur. No attempt should be made to remove material from skin or to remove contaminated clothing, as the bonded skin can be easily torn. Wash skin thoroughly with soap and water.
<b>Eye contact</b>	Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. If adhesive bonding occurs, do not force eyelids apart. Apply a pad soaked in warm water and allow the eyelids to separate. Get medical attention. Cured adhesive will not bond well to surface of eye, but corneal damage from abrasion may result.

#### Most important symptoms and effects, both acute and delayed

<b>General information</b>	See Section 11 for additional information on health hazards.
<b>Inhalation</b>	Irritation of nose, throat and airway.
<b>Ingestion</b>	On contact, immediate bonding of mouth could occur.
<b>Skin contact</b>	Prolonged skin contact may cause redness and irritation.
<b>Eye contact</b>	Irritating and may cause redness and pain.

#### Indication of immediate medical attention and special treatment needed

<b>Notes for the doctor</b>	SKIN BONDING. Prise the skin apart slowly working from the edge of the bonded area. This can be eased by using warm soapy water. EYE BONDING. DO NOT force eyelids apart. Apply a pad soaked in warm water and allow the eye to separate itself.
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### 5. Fire-fighting measures

#### Extinguishing media

<b>Suitable extinguishing media</b>	Extinguish with foam, carbon dioxide, dry powder or water fog.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.

#### Special hazards arising from the substance or mixture

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<b>Specific hazards</b>	Cloths used to wipe up spills may cause rapid polymerization that could generate sufficient heat to ignite the cloth.
<b>Hazardous combustion products</b>	Trace amounts of toxic and/or irritating organic vapors may be generated. The use of breathing apparatus is recommended.
<b><u>Advice for firefighters</u></b>	
<b>Protective actions during firefighting</b>	Avoid breathing fire gases or vapors.
<b>Special protective equipment for firefighters</b>	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** For personal protection, see Section 8. Provide adequate ventilation. Keep unnecessary and unprotected personnel away from the spillage.

#### Environmental precautions

**Environmental precautions** Avoid discharge into drains or watercourses or onto the ground. Avoid the spillage or runoff entering drains, sewers or watercourses.

#### Methods and material for containment and cleaning up

**Methods for cleaning up** Small spills: wipe up with cloth. Immediately soak cloth with water to polymerize the adhesive. Caution! Cloth containing adhesive may undergo autoignition if not soaked with water. Large spills: flood area with water. When cured, remove film with a scraper.

**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** Wear protective clothing as described in Section 8 of this safety data sheet. Ensure adequate ventilation of the working area. Do not handle until all safety precautions have been read and understood. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Keep away from fabric and paper goods. Contact with these materials may cause rapid polymerization which can generate smoke and strong irritating vapors and cause thermal burns.

#### Conditions for safe storage, including any incompatibilities

**Storage precautions** Store in tightly-closed, original container in a dry and cool place. Keep away from heat, sparks and open flame. Keep container closed when not in use.

#### Specific end uses(s)

**Specific end use(s)** Adhesive.

### 8. Exposure Controls/personal protection

#### Control parameters

#### Occupational exposure limits

#### **ETHYL 2-CYANOACRYLATE**

Long-term exposure limit (8-hour TWA): ACGIH 0.2 ppm 1 mg/m<sup>3</sup>

#### **CARBON BLACK**

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Long-term exposure limit (8-hour TWA): ACGIH 3 mg/m<sup>3</sup> inhalable fraction  
A3

Long-term exposure limit (8-hour TWA): OSHA 3.5 mg/m<sup>3</sup>

### HYDROQUINONE

Long-term exposure limit (8-hour TWA): OSHA 2 mg/m<sup>3</sup>

Long-term exposure limit (8-hour TWA): ACGIH 1 mg/m<sup>3</sup>

A3, DSens

ACGIH = American Conference of Governmental Industrial Hygienists.

OSHA = Occupational Safety and Health Administration.

A3 = Confirmed Animal Carcinogen with Unknown Relevance to Humans.

DSens = Dermal sensitizer.

### Exposure controls

<b>Appropriate engineering controls</b>	Use positive down draft exhaust ventilation if general ventilation is insufficient to maintain vapor concentrations below established exposure limits. Observe any occupational exposure limits for the product or ingredients.
<b>Eye/face protection</b>	Wear approved safety goggles. Use face shield in case of splash risk.
<b>Hand protection</b>	Nitrile rubber or Viton™ gloves are recommended. Cotton or other absorbent gloves should not be worn.
<b>Other skin and body protection</b>	Uniforms, coveralls, or a lab coat should be worn
<b>Respiratory protection</b>	Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. Ensure all respiratory protective equipment is suitable for its intended use and is NIOSH approved. Full face mask respirators with replaceable filter cartridges should comply with OSHA 1910.134.

## 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

<b>Appearance</b>	Opaque liquid.
<b>Color</b>	Black.
<b>Odor</b>	Pungent. Irritating.
<b>Odor threshold</b>	1 - 2 ppm
<b>pH</b>	Not applicable.
<b>Melting point</b>	Not applicable.
<b>Initial boiling point and range</b>	>149°C (300°F)
<b>Flash point</b>	80°C – 93°C (176°F - 199.94°F )
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	Not available.
<b>Vapor pressure</b>	~0.6 mbar @ 25°C
<b>Vapor density</b>	Not applicable.
<b>Relative density</b>	1.1
<b>Bulk density</b>	Not available.

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<b>Solubility(ies)</b>	Hardens in contact with water. Insoluble in water. Miscible with the following materials: acetone
<b>Partition coefficient</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition Temperature</b>	Not available.
<b>Viscosity</b>	≈3000 mPa s @ 23°C
<b>Oxidizing properties</b>	Not applicable.
<b>Volatile organic compound</b>	This product contains a maximum VOC content of 2.5 %. According to EC Directive 2004/42/EC

### 10. Stability and reactivity

<b>Reactivity</b>	The product reacts with water and will generate heat.
<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended.
<b>Possibility of hazardous reactions</b>	Reactions with the following materials may generate heat: Water Alcohols. Alkalis. Amines.
<b>Conditions to avoid</b>	Never add water directly to this product as it may cause a vigorous reaction or boiling.
<b>Materials to avoid</b>	Water. Amines. Alkalis. Alcohols.
<b>Hazardous decomposition products</b>	Toxic/Irritating fumes

### 11. Toxicological information

#### Information on toxicological effects

<b>Toxicological effects</b>	The toxicological properties of this product have not been fully evaluated.
<b><u>Skin corrosion/irritation</u></b>	
<b>Skin corrosion/irritation</b>	Causes skin irritation.
<b><u>Serious eye damage/irritation</u></b>	
<b>Serious eye damage/irritation</b>	Causes serious eye irritation.
<b><u>Respiratory sensitization</u></b>	
<b>Respiratory sensitization</b>	Based on available data the classification criteria are not met.
<b><u>Skin sensitization</u></b>	
<b>Skin sensitization</b>	Based on available data the classification criteria are not met.
<b><u>Germ cell mutagenicity</u></b>	
<b>Genotoxicity - in vitro</b>	Based on available data the classification criteria are not met.
<b><u>Carcinogenicity</u></b>	
<b>Carcinogenicity</b>	Contains a substance which may be potentially carcinogenic.
<b>IARC carcinogenicity</b>	This product contains a component at levels greater or equal to 0.1% classified as IARC Group 2B Possibly carcinogenic to humans.

#### Specific target organ toxicity - single exposure

<b>STOT - single exposure</b>	STOT SE 3 - H335
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**Target organs**                      Respiratory system, lungs

### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure**      Not classified as a specific target organ toxicant after repeated exposure.

### Aspiration hazard

**Aspiration hazard**                      Based on available data the classification criteria are not met.

**Inhalation**                              May cause respiratory system irritation. A single exposure may cause the following adverse effects: May cause respiratory system irritation. May cause coughing and difficulties in breathing.

**Ingestion**                                On contact, immediate bonding of mouth could occur.

**Skin Contact**                            On contact, immediate bonding of the skin will occur. Irritating to skin.

**Eye contact**                            Irritating to eyes. On contact, will bond eyelids together. Vapours are lachrymatory.

**Route of exposure**                    Inhalation Skin and/or eye contact

**Target Organs**                        Respiratory system, lungs

### Toxicological information on ingredients.

#### ETHYL 2-CYANOACRYLATE

##### Acute toxicity - oral

**Acute toxicity oral (LD<sub>50</sub>)**      5,000.0  
mg/kg)

**Species**                                Rat

**ATE oral (mg/kg)**                    5,000.0

##### Acute toxicity - dermal

**Acute toxicity dermal (LD<sub>50</sub>)**    2,000.1  
mg/kg)

**Species**                                Rabbit

**ATE dermal (mg/kg)**                2,000.1

##### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)**        Not available.

##### Skin corrosion/irritation

**Animal data**                         Dose: 0.5g, 24 hours, Rabbit Slightly irritating.

##### Serious eye damage/irritation

**Serious eye damage/irritation**    Method: OECD 405, Rabbit Irritating to eyes.

##### Skin sensitization

**Skin sensitization**                 - Guinea pig: Not sensitizing.

##### Germ cell mutagenicity

**Genotoxicity - in vitro**            Gene mutation: Negative. Chromosome aberration: Negative. Bacterial reverse mutation test: Negative.

##### Carcinogenicity

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**Carcinogenicity** No evidence of carcinogenicity in animal studies.

### Reproductive toxicity

**Reproductive toxicity - fertility** Technically not feasible.

**Reproductive toxicity - development** Technically not feasible.

### Specific target organ toxicity - single exposure

**STOT - single exposure** No information available.

### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** No information available.

### Aspiration hazard

**Aspiration hazard** Not available.

## CARBON BLACK

### Acute toxicity - oral

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 8,000.0

**Species** Rat

**ATE oral (mg/kg)** 8,000.0

### Carcinogenicity

**IARC carcinogenicity** IARC Group 2B Possibly carcinogenic to humans.

## HYDROQUINONE

### Acute toxicity - oral

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 375.0

**Species** Rat

**ATE oral (mg/kg)** 500.0

### Acute toxicity - dermal

**Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 2,000.1

**Species** Rabbit

**ATE dermal (mg/kg)** 2,000.1

### Skin corrosion/irritation

**Animal data** None

### Skin sensitization

**Skin sensitization** - Mouse: Sensitizing. - Guinea pig: Not sensitizing.

### Germ cell mutagenicity

**Genotoxicity - in vitro** Chromosome aberration: Negative.



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### Carcinogenicity

**Carcinogenicity** Suspected of causing cancer.

**IARC carcinogenicity** IARC Group 3 Not classifiable as to its carcinogenicity to humans.

### 12. Ecological Information

**Ecotoxicity** There are no data on the ecotoxicity of this product.

#### Bioaccumulative potential

**Partition coefficient** Not available.

### 13. Disposal considerations

#### Waste treatment methods

**General information** Empty containers may contain product residue; follow SDS and label warnings even after they have been emptied.

**Disposal methods** Dispose of according to Federal, State and local governmental regulations.

### 14. Transport information

**Air transport notes** Applies only to inner containers > 500ml.

#### UN Number

**UN No. (IMDG)** 3334

**UN No. (ICAO)** 3334

**UN No. (DOT)** NA1993

#### UN proper shipping name

**Proper shipping name (IMDG)** Not Regulated

**Proper shipping name (ICAO)** AVIATION REGULATED LIQUID, N.O.S. (Cyanoacrylate ester)

**Proper shipping name (DOT)** COMBUSTIBLE LIQUID, N.O.S. (Cyanoacrylate ester)

#### Transport hazard class(es)

**DOT hazard class** None

**DOT hazard label** Combustible liquid

**IMDG Class** None

**ICAO class/division** 9

#### Packing group

**IMDG packing group** None

**ICAO packing group** III

**DOT packing group** III

### 15. Regulatory information

#### US Federal Regulations

**SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities**

*HYDROQUINONE*

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

HYDROQUINONE

### 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  
Reactivity

### 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.

#### US - TSCA

All the ingredients are listed or exempt.

#### US - TSCA 12(b) Export Notification

None above reporting limits

### 16. Other information

<b>Classification abbreviations and acronyms</b>	Carc. = Carcinogenicity Eye Irrit. = Eye irritation Flam. Liq. = Flammable liquid Skin Irrit. = Skin irritation STOT SE = Specific target organ toxicity-single exposure
<b>Revision date</b>	1/25/2018
<b>Revision</b>	6
<b>Supersedes date</b>	6/9/2015
<b>Hazard statements in full</b>	H227 Combustible liquid. H302 Harmful if swallowed. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H341 Suspected of causing genetic defects. H351 Suspected of causing cancer.

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