

Permabond®

Engineering Adhesives

SAFETY DATA SHEET

Permabond ASC10

1. Identification

Product identifier

Product name Permabond ASC10

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 Classification and Labeling of Chemicals (GHS).

Physical hazards Flam. Liq. 2 - H225

Health hazards Skin Irrit. 2 - H315 STOT SE 3 - H336 Asp. Tox. 1 - H304

Label elements

Pictogram



Signal word

Danger

Hazard statements

H225 Highly flammable liquid and vapor.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.

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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>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>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>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>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>Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.</p>
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Contains HYDROCARBONS, C7, n-ALKANES, ISOALKANES, CYCLICS

3. Composition/information on ingredients

Mixtures

HYDROCARBONS, C7, n-ALKANES, ISOALKANES, CYCLICS	60-100%
CAS number: —	
Classification	
Flam. Liq. 2 - H225	
Skin Irrit. 2 - H315	
STOT SE 3 - H336	
Asp. Tox. 1 - H304	
Not relevant.	
trans-DICHLOROETHYLENE	5-10%
CAS number: 156-60-5	
Classification	
Flam. Liq. 2 - H225	
Acute Tox. 4 - H332	
Not relevant.	

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N,N-DIMETHYL-PARA-TOLUIDINE	<1%
CAS number: 99-97-8	
Classification	
Acute Tox. 3 - H301	
Acute Tox. 3 - H311	
Acute Tox. 3 - H331	
STOT RE 2 - H373	
Not relevant.	
COPPER NAPHTHENATE	<1%
CAS number: 1338-02-9	
Classification	
Flam. Liq. 3 - H226	
Acute Tox. 4 - H302	
Not relevant.	
2-ETHYLHEXANOIC ACID, COPPER SALT	<1%
CAS number: 22221-10-9	
Classification	
Acute Tox. 4 - H302	
Not relevant.	
2-ETHYLHEXANOIC ACID	<1%
CAS number: 149-57-5	
Classification	
Repr. 2 - H361d	
COPPER DI(ACETATE)	<1%
CAS number: 142-71-2	
Classification	
Acute Tox. 4 - H302	
Skin Corr. 1B - H314	
Eye Dam. 1 - H318	
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 and keep warm and at rest in a position comfortable for breathing. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. If breathing stops, provide artificial respiration. Get medical attention if symptoms are severe or persist.

Ingestion

Do not induce vomiting. Get medical attention.

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Skin Contact	Rinse immediately with plenty of water. Get medical attention if symptoms are severe or persist after washing.
Eye contact	Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Get medical attention.
<u>Most important symptoms and effects, both acute and delayed</u>	
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	May be fatal if swallowed and enters airways.
Skin contact	Prolonged contact may cause redness, irritation and dry skin.

Indication of immediate medical attention and special treatment needed

Notes for the doctor	Avoid vomiting and stomach flushing because of the risk of aspiration.
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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. Oxides of carbon. Oxides of nitrogen.
<u>Advice for firefighters</u>	
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.
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Environmental precautions

Environmental precautions	Avoid the spillage or runoff entering drains, sewers or watercourses.
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Methods and material for containment and cleaning up

Methods for cleaning up	Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container.
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Reference to other sections	For personal protection, see Section 8. For waste disposal, see Section 13.
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7. Handling and storage

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Precautions for safe handling

Usage precautions Use in a well ventilated area. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not breathe vapours. Avoid contact with eyes, skin, and clothing. Wash after use and before eating, smoking and using the toilet.

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, sparks and open flame.

8. Exposure Controls/personal protection

Control parameters

Occupational exposure limits

trans-DICHLOROETHYLENE

Long-term exposure limit (8-hour TWA): ACGIH 200 ppm 793 mg/m³

2-ETHYLHEXANOIC ACID

Long-term exposure limit (8-hour TWA): ACGIH 5 mg/m³ inhalable fraction and vapor

ACGIH = American Conference of Governmental Industrial Hygienists.

Exposure controls

Appropriate engineering controls	Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.
Eye/face protection	Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for slashing or spraying exists.
Hand protection	Nitrile rubber or Viton™ gloves are recommended. 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. Cotton or other absorbent gloves should not be worn.
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.
Respiratory protection	Ensure adequate ventilation of the working area. Respiratory protection may be required if excessive airborne contamination occurs. Use NIOSH approved respirator if there is potential to exceed exposure limit(s). This product should not be used under conditions of poor ventilation unless a NIOSH approved organic vapor respirator is used. Follow OSHA 1910.134 in the selection and use of respirators.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Liquid.
Color	Green.
Odor	Aromatic hydrocarbons.
Odor threshold	Not available.
pH	Not available.
Melting point	Not available.
Initial boiling point and range	96 - 99°C/205 - 210°F
Flash point	-2°C/28.4°F
Evaporation rate	2.7 (diethyl ether = 1)

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Evaporation factor	Not available.
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	Approximately 3
Relative density	0.7 @ 25°C/77°F
Solubility(ies)	Insoluble in water.
Partition coefficient	Not available.
Auto-ignition temperature	Not available.
Viscosity	~0.7 cP @ 25°C/77°F
Volatile organic compound	This product contains a maximum VOC content of 99.9% (Estimated) .

10. Stability and reactivity

Reactivity	The following materials may react with the product: Acids. 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	Strong oxidizing agents.
Hazardous decomposition products	Thermal decomposition could produce carbon monoxide, carbon dioxide, and unidentified organic compounds.

11. Toxicological information

Information on toxicological effects

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.

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Reproductive toxicity

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

Specific target organ toxicity - single exposure

STOT - single exposure A single exposure may cause the following adverse effects: May cause drowsiness or dizziness.

Aspiration hazard

Aspiration hazard May be fatal if swallowed and enters airways.

Inhalation May cause respiratory system irritation.

Ingestion May be fatal if swallowed and enters airways.

Skin Contact Irritating to skin.

Eye contact May cause discomfort.

Acute and chronic health hazards This product is moderately irritating.

Route of exposure Skin and/or eye contact Inhalation Ingestion

Toxicological information on ingredients.

HYDROCARBONS, C7, n-ALKANES, ISOALKANES, CYCLICS

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 5,840.0

Species Rat

ATE oral (mg/kg) 5,840.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,800.0

Species Rat

ATE dermal (mg/kg) 2,800.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 23.3

Species Rat

ATE inhalation (vapours mg/l) 23.3

Skin corrosion/irritation

Skin corrosion/irritation Read-across data. Method: OECD 404, Rabbit Irritating.

Serious eye damage/irritation

Serious eye damage/irritation Read-across data. Not irritating.

Skin sensitization

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Skin sensitization	Read-across data. Not sensitizing.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Read-across data. Negative.
<u>Carcinogenicity</u>	
Carcinogenicity	Not available.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Read-across data. Two-generation study - NOAEL 9000 ppm, Inhalation, Rat F1
Reproductive toxicity - development	Read-across data. Developmental toxicity: - NOAEC: 1200 ppm, Inhalation, Rat
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	Not available.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	Not available.
<u>Aspiration hazard</u>	
Aspiration hazard	Not available.

trans-DICHLOROETHYLENE

<u>Acute toxicity - oral</u>	
Acute toxicity oral (LD₅₀ mg/kg)	2,000.1
Species	Rat
ATE oral (mg/kg)	2,000.1
<u>Acute toxicity - dermal</u>	
Acute toxicity dermal (LD₅₀ mg/kg)	5,000.0
Species	Rabbit
ATE dermal (mg/kg)	5,000.0
<u>Acute toxicity - inhalation</u>	
Acute toxicity inhalation (LC₅₀ gases ppmV)	24,000.0
Species	Rat
ATE inhalation (gases ppm)	4,500.0

N,N-DIMETHYL-PARA-TOLUIDINE

<u>Acute toxicity - oral</u>	
Acute toxicity oral (LD₅₀ mg/kg)	139.0
Species	Rat

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ATE oral (mg/kg)	139.0
<u>Acute toxicity - dermal</u>	
Acute toxicity dermal (LD ₅₀ mg/kg)	2,000.0
Species	Rabbit
ATE dermal (mg/kg)	300.0
<u>Acute toxicity - inhalation</u>	
Acute toxicity inhalation (LC ₅₀ vapours mg/l)	3.19
ATE inhalation (vapours mg/l)	3.19
<u>Skin corrosion/irritation</u>	
Animal data	Method: OECD 404, Rabbit Moderately irritating.
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	Method: OECD 405, Rabbit Moderately irritating.
<u>Skin sensitization</u>	
Skin sensitization	Not sensitizing.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Ames test This substance has no evidence of mutagenic properties.
<u>Carcinogenicity</u>	
Carcinogenicity	No information available.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Two-generation study - LOEL 72.977 mg/kg/day, , Rat F2
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	No information available.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	May cause damage to organs through prolonged or repeated exposure.
<u>Aspiration hazard</u>	
Aspiration hazard	Not available.

12. Ecological Information

Ecotoxicity	No information available.
<u>Bioaccumulative potential</u>	
Partition coefficient	Not available.

13. Disposal considerations

Waste treatment methods

Disposal methods	Dispose of according to Federal, State and local governmental regulations.
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14. Transport information

UN Number

UN No. (IMDG)	1206
UN No. (ICAO)	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)

DOT hazard class	3
DOT hazard label	3
IMDG Class	3
ICAO class/division	3

DOT transport labels



Transport labels



Packing group

IMDG packing group	II
ICAO packing group	II
DOT packing group	II

Environmental hazards

Environmentally Hazardous Substance



15. Regulatory information

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None above reporting de minimis.

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

trans-DICHLOROETHYLENE

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SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None above reporting limits

SARA 313 Emission Reporting

COPPER NAPHTHENATE

2-ETHYLHEXANOIC ACID, COPPER SALT

SARA (311/312) Hazard Categories

Aspiration Hazard
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.

This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

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

Not listed.

16. Other information

Classification abbreviations and acronyms
 Flam. Liq. = Flammable liquid
 Skin Irrit. = Skin irritation
 STOT SE = Specific target organ toxicity-single exposure
 Asp. Tox. = Aspiration hazard

Revision date 3/26/2018

Revision 6

Supersedes date 1/25/2018

Hazard statements in full
 H225 Highly flammable liquid and vapor.
 H226 Flammable liquid and vapor.
 H301 Toxic if swallowed.
 H302 Harmful if swallowed.
 H304 May be fatal if swallowed and enters airways.
 H311 Toxic in contact with skin.
 H314 Causes severe skin burns and eye damage.
 H315 Causes skin irritation.
 H318 Causes serious eye damage.
 H331 Toxic if inhaled.
 H332 Harmful if inhaled.
 H336 May cause drowsiness or dizziness.
 H361d Suspected of damaging the unborn child.
 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.