



SAFETY DATA SHEET

Anti-Seize

1. Identification

Product identifier

Product name Anti-Seize

Recommended use of the chemical and restrictions on use

Application Adhesive. Sealant.

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 This Product is Not Hazardous under the OSHA Hazard Communication Standard.

Physical hazards Not Classified

Health hazards Not Classified

Label elements

Hazard statements NC Not Classified

Other hazards

None under normal conditions.

3. Composition/information on ingredients

Mixtures

Distillates (petroleum), solvent-dewaxed heavy paraffinic	10-30%
CAS number: 64742-65-0	

Classification
 Not Classified

Anti-Seize

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHTHENIC; BASEOIL - U	10-30%
CAS number: 64742-52-5	
Classification Not Classified	
COPPER	10-30%
CAS number: 7440-50-8	
Classification Not relevant.	
Graphite	10-30%
CAS number: 7782-42-5	
Classification Not Classified	
ALUMINIUM POWDER (STABILIZED)	1-5%
CAS number: 7429-90-5	
Classification Flam. Sol. 1 - H228 Water-react. 2 - H261	

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

4. First-aid measures

Description of first aid measures

Inhalation	Move the exposed person to fresh air. Get medical attention if any discomfort continues.
Ingestion	Never give anything by mouth to an unconscious person. Get medical attention.
Skin Contact	Wash skin thoroughly with soap and water. Remove contaminated clothing. If symptoms develop, obtain medical attention
Eye contact	Remove any contact lenses and open eyelids wide apart. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

Most important symptoms and effects, both acute and delayed

Skin contact	Prolonged contact may cause redness, irritation and dry skin.
Eye contact	May cause temporary eye irritation.

5. Fire-fighting measures

Extinguishing media

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

Anti-Seize

Special hazards arising from the substance or mixture

Hazardous combustion products Thermal decomposition could produce carbon monoxide, carbon dioxide, and unidentified organic compounds. Burning produces irritating, toxic and obnoxious fumes.

Advice for firefighters

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 Use personal protection recommended in section 8 of this SDS

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 spillage with sand or other inert absorbent. 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 Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry and cool place.

8. Exposure controls/Personal protection

Control parameters

Occupational exposure limits

COPPER

Long-term exposure limit (8-hour TWA): ACGIH 0.2 mg/m³ fume as Cu

Long-term exposure limit (8-hour TWA): OSHA 1 mg/m³ dusts and mists as Cu

Long-term exposure limit (8-hour TWA): ACGIH 1 mg/m³ dusts and mists as Cu

Long-term exposure limit (8-hour TWA): OSHA 0.1 mg/m³ fume as Cu

ALUMINIUM POWDER (STABILIZED)

Long-term exposure limit (8-hour TWA): OSHA 5 mg/m³ respirable fraction as Al

Long-term exposure limit (8-hour TWA): OSHA 15 mg/m³ total dust as Al

Long-term exposure limit (8-hour TWA): ACGIH 1 mg/m³ respirable fraction A4

ACGIH = American Conference of Governmental Industrial Hygienists.

OSHA = Occupational Safety and Health Administration.

A4 = Not Classifiable as a Human Carcinogen.

Exposure controls

Anti-Seize

Appropriate engineering controls	Provide adequate ventilation. Observe any occupational exposure limits for the product or ingredients.
Eye/face protection	Tight-fitting safety glasses.
Hand protection	For prolonged or repeated skin contact use suitable protective gloves. Nitrile rubber or Viton™ gloves are recommended. Cotton or other absorbent gloves should not be worn.
Other skin and body protection	Wear appropriate clothing to prevent repeated or prolonged skin contact.
Hygiene measures	Wash at the end of each work shift and before eating, smoking and using the toilet. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.
Respiratory protection	Not normally required.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Paste.
Color	Silver.
Odor	Mild.
Odor threshold	Not available.
pH	Not determined.
Melting point	Not determined.
Initial boiling point and range	Not available.
Flash point	350°F
Evaporation rate	Not available.
Evaporation factor	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	1.2
Solubility(ies)	Not available.
Partition coefficient	Not available.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Volatile organic compound	<2 %, 20 grams/liter (Estimated)

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	Stable at normal ambient temperatures and when used as recommended.

Anti-Seize

Possibility of hazardous reactions	No specific material or group of materials is likely to react with the product to produce a hazardous situation.
Conditions to avoid	Avoid contact with strong oxidizing agents.
Materials to avoid	Avoid concentrated oxygen
Hazardous decomposition products	Thermal decomposition could produce carbon monoxide, carbon dioxide, and unidentified organic compounds.

11. Toxicological information

Information on toxicological effects

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

Skin corrosion/irritation

Skin corrosion/irritation Based on available data the classification criteria are not met.

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.

Reproductive toxicity - development Does not contain any substances known to be toxic to reproduction.

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

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

Inhalation Unlikely to be hazardous by inhalation because of the low vapor pressure of the product at ambient temperature.

Ingestion No harmful effects expected from quantities likely to be ingested by accident.

Skin Contact Prolonged and frequent contact may cause redness and irritation.

Anti-Seize

Eye contact May cause temporary eye irritation.

Toxicological information on ingredients.

Distillates (petroleum), solvent-dewaxed heavy paraffinic

Acute toxicity - oral

Acute toxicity oral (LD₅₀ 5,000.0
mg/kg)

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 5,000.0
mg/kg)

Species Rabbit

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHTHENIC; BASEOIL - U

Acute toxicity - oral

Acute toxicity oral (LD₅₀ 5,000.0
mg/kg)

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 5,000.0
mg/kg)

Species Rabbit

Acute toxicity - inhalation

Acute toxicity inhalation 5.01
(LC₅₀ dust/mist mg/l)

Species Rat

COPPER

Acute toxicity - oral

Acute toxicity oral (LD₅₀ 2,500.0
mg/kg)

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 2,000.1
mg/kg)

Species Rat

Acute toxicity - inhalation

Acute toxicity inhalation 5.11
(LC₅₀ dust/mist mg/l)

Species Rat

Skin corrosion/irritation

Anti-Seize

Animal data	Method: OECD 404, Rabbit Not irritating.
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	Method: OECD 405, Rabbit Slightly irritating.
<u>Skin sensitization</u>	
Skin sensitization	Guinea pig maximization test (GPMT) - Guinea pig: Not sensitizing.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Gene mutation: Negative.
Genotoxicity - in vivo	Micronucleus assay Negative.
<u>Carcinogenicity</u>	
Carcinogenicity	No information available.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Two-generation study - LOAEL 1500 ppm, Oral, Rat P
Reproductive toxicity - development	Developmental toxicity: - NOAEL: 6 mg/kg/day, Oral, Rabbit
<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	No information available.
<u>Aspiration hazard</u>	
Aspiration hazard	No information available.

Graphite

<u>Acute toxicity - oral</u>	
Acute toxicity oral (LD₅₀ mg/kg)	2,000.0
Species	Rat

ALUMINIUM POWDER (STABILIZED)

<u>Acute toxicity - oral</u>	
Acute toxicity oral (LD₅₀ mg/kg)	2,000.1
Species	Rat

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ dust/mist mg/l)	7.6
Species	Rat

Skin corrosion/irritation

Animal data	Not classified.
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Serious eye damage/irritation

Serious eye damage/irritation Not classified.

Respiratory sensitization

Respiratory sensitization Not classified.

Skin sensitization

Skin sensitization Not classified.

Carcinogenicity

Carcinogenicity Not classified.

Reproductive toxicity

Reproductive toxicity - fertility Not classified.

Specific target organ toxicity - single exposure

STOT - single exposure Not classified.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified.

Aspiration hazard

Aspiration hazard Not classified.

12. Ecological information

Toxicity No data available.

Bioaccumulative potential

Partition coefficient Not available.

13. Disposal considerations

Waste treatment methods

General information Dispose of according to Federal, State/Provincial and local regulations. Refer to section 8 before handling.

14. Transport information

General Not regulated.

UN Number

UN No. (International) Not applicable.

UN proper shipping name

Proper shipping name (International) Not applicable.

Transport hazard class(es)

Transport Labels (International) Not applicable.

Packing group

Packing group (International) Not applicable.

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Environmental hazards

Environmentally Hazardous Substance

No.

15. Regulatory information

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None above reporting levels

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

ALUMINIUM POWDER (STABILIZED)

COPPER

SARA (311/312) Hazard Categories

None

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm

Inventories

Canada - DSL/NDSL

All the ingredients are listed or exempt.

US - TSCA

All the ingredients are listed or exempt.

16. Other information

Revision date	10/25/2019
Revision	1
Hazard statements in full	H228 Flammable solid. H261 In contact with water releases flammable gases.

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.