

**1 Identification**

- **Product identifier**
- **Product name: AEROFLEX® Aero Seal (Amber, Black) Rubber Contact Adhesive**
- **Synonyms:** Aero Seal (Amber, Black)
- **Manufacturer/Supplier:**  
Aeroflex USA, Inc.  
282 Industrial Park, Rd., Sweetwater, TN 37874 Phone:  
Toll Free 1-866-237-6235
- **Emergency telephone number:** ChemTel Inc.  
1-800-255-3924 (North America)  
1-813-248-0585 (International)

**2 Hazard(s) identification**

- **Classification of the substance or mixture**  
Flam. Liq. 2 H225 Highly flammable liquid and vapor.  
Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2A H319 Causes serious eye irritation.  
Repr. 2 H361 Suspected of damaging fertility or the unborn child. Route of exposure: Inhalation.  
STOT SE 3 H336 May cause drowsiness or dizziness.  
STOT RE 2 H373 May cause damage to the nervous system through prolonged or repeated exposure.  
Route of exposure: Inhalation.  
Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

**Label elements****GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

**Hazard pictograms:**

GHS02 GHS07 GHS08

- **Signal word:** Danger
- **Hazard statements:**  
H225 Highly flammable liquid and vapor.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H361 Suspected of damaging fertility or the unborn child. Route of exposure: Inhalation.  
H336 May cause drowsiness or dizziness.  
H373 May cause damage to the nervous system through prolonged or repeated exposure. Route of exposure: Inhalation.

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H304 May be fatal if swallowed and enters airways.

· **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/hot surfaces. - No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe mist/vapors/spray.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection.
P301+P310	If swallowed: Immediately call a poison center/doctor.
P331	Do NOT induce vomiting.
P303+P361+P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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.
P362+P364	Take off contaminated clothing and wash it before reuse.
P337+P313	If eye irritation persists: Get medical advice/attention.
P370+P378	In case of fire: Use foam, powder, or carbon dioxide for extinction.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Other hazards** There are no other hazards not otherwise classified that have been identified.

### 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Components:**

110-54-3	n-hexane	 Flam. Liq. 2, H225  Repr. 2, H361; STOT RE 2, H373; Asp. Tox. 1, H304  Skin Irrit. 2, H315; STOT SE 3, H336  Eye Irrit. 2B, H320	25-50%
67-64-1	Acetone	 Flam. Liq. 2, H225  Eye Irrit. 2A, H319; STOT SE 3, H336	25-50%
108-88-3	Toluene	 Flam. Liq. 2, H225  Repr. 2, H361; STOT RE 2, H373; Asp. Tox. 1, H304  Skin Irrit. 2, H315; STOT SE 3, H336	10-25%
1309-48-4	Magnesium oxide		<2.5%

· **Additional information:**

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For the wording of the listed Hazard Statements, refer to section 16.  
For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.

**4 First-aid measures****· Description of first aid measures****· After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

**· After skin contact:**

Immediately remove any clothing soiled by the product.

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

**· After eye contact:**

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. Then consult a doctor.

**· After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

A person vomiting while lying on their back should be turned onto their side.

**· Most important symptoms and effects, both acute and delayed:**

Headache

Dizziness

Breathing difficulty

Gastric or intestinal disorders

**· Danger:**

Danger of convulsion.

Danger of disturbed cardiac rhythm.

Danger of impaired breathing.

**· Indication of any immediate medical attention and special treatment needed:**

If swallowed, gastric irrigation with added, activated carbon.

Medical supervision for at least 48 hours.

**5 Fire-fighting measures****· Extinguishing media****· Suitable extinguishing agents:**

Carbon dioxide

Fire-extinguishing powder

Foam

Water fog / haze

**· For safety reasons unsuitable extinguishing agents:** Waterstream.**· Special hazards arising from the substance or mixture**

Formation of toxic gases is possible during heating or in case of fire.

**· Advice for firefighters****· Protective equipment:**

Wear self-contained respiratory protective device.

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Wear fully protective suit.

- **Additional information:** Cool endangered containers with water fog.

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

Keep away from ignition sources.

- **Environmental precautions**

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

- **Methods and material for containment and cleaning up**

Allow to solidify. Pick up mechanically.

Clean the affected area carefully; suitable cleaners are:

Organic solvent

Warm water and cleansing agent

- **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

**7 Handling and storage**

- **Handling**

- **Precautions for safe handling:**

Open and handle receptacle with care.

Use only in well ventilated areas.

Keep out of reach of children.

- **Information about protection against explosions and fires:**

Protect from heat.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- **Conditions for safe storage, including any incompatibilities**

- **Requirements to be met by storerooms and receptacles:**

Store in cool, dry conditions in well sealed receptacles.

- **Information about storage in one common storage facility:**

Store away from foodstuffs.

Store away from oxidizing agents.

- **Specific end use(s)** No relevant information available.

**8 Exposure controls/personal protection**

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

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**110-54-3 n-hexane**

PEL (USA)	Long-term value: 1800 mg/m <sup>3</sup> , 500 ppm
REL (USA)	Long-term value: 180 mg/m <sup>3</sup> , 50 ppm
TLV (USA)	Long-term value: 176 mg/m <sup>3</sup> , 50 ppm Skin; BEI
EL (Canada)	Long-term value: 20 ppm Skin
EV (Canada)	Long-term value: 176 mg/m <sup>3</sup> , 50 ppm
LMPE (Mexico)	Long-term value: 50 ppm PIEL, IBE

**67-64-1 Acetone**

PEL (USA)	Long-term value: 2400 mg/m <sup>3</sup> , 1000 ppm
REL (USA)	Long-term value: 590 mg/m <sup>3</sup> , 250 ppm
TLV (USA)	Short-term value: 1187 mg/m <sup>3</sup> , 500 ppm Long-term value: 594 mg/m <sup>3</sup> , 250 ppm BEI
EL (Canada)	Short-term value: 500 ppm Long-term value: 250 ppm
EV (Canada)	Short-term value: 750 ppm Long-term value: 500 ppm
LMPE (Mexico)	Short-term value: 750 ppm Long-term value: 500 ppm A4, IBE

**108-88-3 Toluene**

PEL (USA)	Long-term value: 200 ppm Ceiling limit value: 300; 500* ppm *10-min peak per 8-hr shift
REL (USA)	Short-term value: 560 mg/m <sup>3</sup> , 150 ppm Long-term value: 375 mg/m <sup>3</sup> , 100 ppm
TLV (USA)	Long-term value: 75 mg/m <sup>3</sup> , 20 ppm BEI
EL (Canada)	Long-term value: 20 ppm R
EV (Canada)	Long-term value: 20 ppm
LMPE (Mexico)	Long-term value: 20 ppm A4, IBE

**1309-48-4 Magnesium oxide**

PEL (USA)	Long-term value: 15* mg/m <sup>3</sup> fume; *total particulate
TLV (USA)	Long-term value: 10* mg/m <sup>3</sup> *as inhalable fraction
EL (Canada)	Short-term value: 10** mg/m <sup>3</sup> Long-term value: 10* 3** mg/m <sup>3</sup> *inhalable fume;**respirable dust and fume
EV (Canada)	Long-term value: 10 mg/m <sup>3</sup>

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LMPE (Mexico)	inhalable Long-term value: 10* mg/m <sup>3</sup> A4, *fracción respirable
<b>· Ingredients with biological limit values:</b>	
<b>110-54-3 n-hexane</b>	
BEI (USA)	0.4 mg/L Medium: urine Time: end of shift at end of workweek Parameter: 2.5-Hexanedione without hydrolysis
<b>67-64-1 Acetone</b>	
BEI (USA)	50 mg/L Medium: urine Time: end of shift Parameter: Acetone (nonspecific)
<b>108-88-3 Toluene</b>	
BEI (USA)	0.02 mg/L Medium: blood Time: prior to last shift of workweek Parameter: Toluene  0.03 mg/L Medium: urine Time: end of shift Parameter: Toluene  0.3 mg/g creatinine Medium: urine Time: end of shift Parameter: o-Cresol with hydrolysis (background)

**· Exposure controls**
**· General protective and hygienic measures:**

- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at the end of work.
- Avoid contact with the eyes and skin.

**· Engineering controls:** No relevant information available.

**· Breathing equipment:**

- Not necessary if room is well-ventilated.
- Use suitable respiratory protective device in case of insufficient ventilation.

**· Protection of hands:**


Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

**· Eye protection:**

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Safety glasses

- **Body protection:** Impervious protective clothing

**9 Physical and chemical properties**
**· Information on basic physical and chemical properties**
**· Appearance:**

**Form:** Liquid  
**Color:** Amber colored

**· Odor:** Mild  
**· Odor threshold:** Not determined.

**· pH-value:** Not determined.  
**· Melting point/Melting range:** Not determined.  
**· Boiling point/Boiling range:** >35 °C (>95 °F)

· **Flash point:** <23 °C (<73.4 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Auto-ignition temperature:** Not determined.

· **Decomposition temperature:** Not determined.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

**· Explosion limits**

**Lower:** Not determined.  
**Upper:** Not determined.

· **Oxidizing properties:** Non-oxidizing.

· **Vapor pressure:** Not determined.

**· Density:**  
**Relative density:** 0.81  
**Vapor density:** Not determined.  
**Evaporation rate:** Not determined.

· **Solubility in / Miscibility with Water:** Not miscible or difficult to mix.

· **Partition coefficient (n-octanol/water):** Not determined.

**· Viscosity**

**Dynamic:** Not determined.  
**Kinematic:** Not determined.

· **Other information** No relevant information available.

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**10 Stability and reactivity**

- **Reactivity:** No relevant information available.
- **Chemical stability:**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.  
To avoid thermal decomposition, do not overheat.
- **Possibility of hazardous reactions**  
Reacts with oxygen.  
Reacts with oxidizing agents.  
Develops readily flammable gases / fumes.
- **Conditions to avoid** No relevant information available.
- **Incompatible materials** No relevant information available.
- **Hazardous decomposition products**  
Carbon monoxide and carbon dioxide  
Formaldehyde

**11 Toxicological information**

- **Information on toxicological effects**
  - **Acute toxicity:** Based on available data, the classification criteria are not met.
  - **LD/LC50 values that are relevant for classification:** None.
  - **Primary irritant effect:**
  - **On the skin:** Irritant to skin and mucous membranes.
  - **On the eye:** Irritating effect.
  - **Sensitization:** No sensitizing effects known.
- |   |
|---|
| · <b>IARC (International Agency for Research on Cancer):</b>        |
| None of the ingredients are listed.                                 |
| · <b>NTP (National Toxicology Program):</b>                         |
| None of the ingredients are listed.                                 |
| · <b>OSHA-Ca (Occupational Safety &amp; Health Administration):</b> |
| None of the ingredients are listed.                                 |
- **Probable route(s) of exposure:**  
Ingestion.  
Inhalation.  
Eye contact.  
Skin contact.
  - **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
  - **Carcinogenicity:** Based on available data, the classification criteria are not met.
  - **Reproductive toxicity:** Suspected of damaging fertility or the unborn child. Route of exposure: Inhalation.
  - **STOT-single exposure:** May cause drowsiness or dizziness.
  - **STOT-repeated exposure:**  
May cause damage to the nervous system through prolonged or repeated exposure. Route of exposure: Inhalation.
  - **Aspiration hazard:** May be fatal if swallowed and enters airways.



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**12 Ecological information**

- **Toxicity**
- **Aquatic toxicity** Toxic to aquatic life with long lasting effects.
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.
- **Additional ecological information**
- **General notes:** Do not allow product to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No relevant information available.

**13 Disposal considerations**

- **Waste treatment methods**
- **Recommendation:**  
Can be disposed of with household garbage after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.

**14 Transport information**

- |   |                                |
|---|--------------------------------|
| <ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>DOT, ADR, IMDG, IATA</b></li> </ul>   | <p>UN1133</p>                  |
| <ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>DOT, IATA</b></li> <li>· <b>ADR, IMDG</b></li> </ul>  | <p>Adhesives<br/>ADHESIVES</p> |
| <ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>DOT</b></li> </ul>   |                                |
| <div style="text-align: center;">  </div> <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul> | <p>3<br/>3</p>                 |

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## · ADR



· Class 3 (F1)  
· Label 3

## · IMDG, IATA

· Class 3  
· Label 3

· Packing group II  
· DOT, ADR, IMDG, IATA

· Environmental hazards Product contains environm entally hazardous substances: n-hexane

## · Marine pollutant:



Yes

· Special precautions for user Warning: Flammable liquids  
· Danger code (Kemler): 33  
· EMS Number: F-E,S-E

· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

## · Transport/Additional information:

· DOT Labeling as a Marine Pollutant is only required for bulk single package shipments. Bulk packaging consists of a maximum capacity of greater than 450 L (119 gallons) for a liquid and a maximum net mass greater than 400 kg (882 pounds) for a solid. (See 171.4(c))



Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each.

· ADR Marine pollutants packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids are not subject to provisions relevant to marine pollutants. (See 5.2.1.8.1)

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Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each.

**· IMDG**

Marine pollutants packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids are not subject to provisions relevant to marine pollutants. (See 2.10.2.7)



Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each.

**· IATA**


Limited Quantity for packages less than 30 kg gross and inner packagings less than 0.5 L each / 1 L net.

**15 Regulatory information**

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

**· Section 302 (extremely hazardous substances):**

None of the ingredients are listed.

**· Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

**· Section 313 (Specific toxic chemical listings):**

110-54-3 | n-hexane

108-88-3 | Toluene

**· TSCA (Toxic Substances Control Act)**

All ingredients are listed.

**· Proposition 65 (California)**
**· Chemicals known to cause cancer:**

None of the ingredients are listed.

**· Chemicals known to cause developmental toxicity for females:**

None of the ingredients are listed.

**· Chemicals known to cause developmental toxicity for males:**

110-54-3 | n-hexane

**· Chemicals known to cause developmental toxicity:**

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108-88-3	Toluene	
· <b>EPA (Environmental Protection Agency):</b>		
110-54-3	n-hexane	II
67-64-1	Acetone	I
108-88-3	Toluene	II
· <b>IARC (International Agency for Research on Cancer):</b>		
None of the ingredients are listed.		
· <b>Canadian Domestic Substances List (DSL):</b>		
All ingredients are listed.		

**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Date of preparation / last revision** May 11, 2018 / -

· **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bio-accumulable, Toxic

vPvB: very Persistent and very Bioaccumulative

OSHA: Occupational Safety & Health Administration

Flam. Liq. 2: Flammable liquids – Category 2

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Eye Irrit. 2B: Serious eye damage/eye irritation – Category 2B

Repr. 2: Reproductive toxicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Asp. Tox. 1: Aspiration hazard – Category 1

· **Sources**

Website, European Chemicals Agency ([echa.europa.eu](http://echa.europa.eu))

Website, US EPA Substance Registry Services ([ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do](http://ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do))

Website, Chemical Abstracts Registry, American Chemical Society ([www.cas.org](http://www.cas.org))

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers