

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and
OSHA GHS

Printing date 02.12.2014

Revision: 02.12.2014

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

- **1.1 Product identifier**
- **Trade name:** Aeroflex Aeroseal Contact Adhesive
- **Article number:** Adhesive
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Adhesives
- **1.3 Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
Aeroflex USA, Inc
282 Industrial Park Road
Sweetwater, TN 37874
Phone: 423-337-2493
- **Further information obtainable from:** Product Safety Department
- **1.4 Emergency telephone number:**
INFOTRAC.
(800)535-5053, Or International +1 (352) 323-3500

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



health hazard

Repr. 2 H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
STOT SE 3 H336 May cause drowsiness or dizziness.

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- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

 Xn; Harmful

R48/20-62-63-65: Harmful: danger of serious damage to health by prolonged exposure through inhalation. Possible risk of impaired fertility. Possible risk of harm to the unborn child.
Harmful: may cause lung damage if swallowed.

 Xi; Irritant

R36/38: Irritating to eyes and skin.

 Xi; Sensitizing

R43: May cause sensitization by skin contact.

 F; Highly flammable

R11: Highly flammable.

 N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R67: Vapors may cause drowsiness and dizziness.

- **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Contact with skin and inhalation of aerosols/ vapors of the preparation should be avoided.

- **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

- **2.2 Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

- **Hazard pictograms**



GHS02 GHS07 GHS08 GHS09

- **Signal word** Danger

- **Hazard-determining components of labelling:**

n-hexane

toluene

- **Hazard statements**

H225 Highly flammable liquid and vapor.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

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H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.

H336 May cause drowsiness or dizziness.

H373 May cause damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

· **Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P281 Use personal protective equipment as required.

P240 Ground/bond container and receiving equipment.

P242 Use only non-sparking tools.

P273 Avoid release to the environment.

P243 Take precautionary measures against static discharge.

P264 Wash thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P321 Specific treatment (see on this label).

P362 Take off contaminated clothing and wash before reuse.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

P314 Get medical advice/attention if you feel unwell.

P370+P378 In case of fire: Use for extinction: CO₂, powder or water spray.

P391 Collect spillage.

P405 Store locked up.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Hazard description:**

· **WHMIS-symbols:**

B2 - Flammable liquid

D2A - Very toxic material causing other toxic effects

D2B - Toxic material causing other toxic effects

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· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**

HEALTH	2	Health = *2
FIRE	3	Fire = 3
REACTIVITY	0	Reactivity = 0

· **HMIS Long Term Health Hazard Substances**

None of the ingredients are listed.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 110-54-3 EINECS: 203-777-6 Index number: 601-037-00-0	n-hexane Xn R48/20-62-65; Xi R38; F R11; N R51/53 R67 Repr. Cat. 3 Flam. Liq. 2, H225 Repr. 2, H361f; STOT RE 2, H373; Asp. Tox. 1, H304 Aquatic Chronic 2, H411 Skin Irrit. 2, H315; STOT SE 3, H336	25-50%
CAS: 67-64-1 EINECS: 200-662-2 Index number: 606-001-00-8	acetone Xi R36; F R11 R66-67 Flam. Liq. 2, H225 Eye Irrit. 2, H319; STOT SE 3, H336	25-50%

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CAS: 108-88-3
EINECS: 203-625-9
Index number: 601-021-00-3

toluene
 Xn R48/20-63-65;  Xi R38;  F R11
 R67
 Repr. Cat. 3

10-25%

 Flam. Liq. 2, H225
 Repr. 2, H361d; STOT RE 2, H373; Asp. Tox. 1, H304
 Skin Irrit. 2, H315; STOT SE 3, H336

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

• 4.1 Description of first aid measures

• General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

• 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 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; call for medical help immediately.

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

• 4.2 Most important symptoms and effects, both acute and delayed

Headache

Dizziness

Breathing difficulty

Gastric or intestinal disorders.

• Hazards

Danger of convulsion.

Danger of disturbed cardiac rhythm.

Danger of impaired breathing.

Condition may deteriorate with alcohol consumption.

• 4.3 Indication of any immediate medical attention and special treatment needed

If swallowed, gastric irrigation with added, activated carbon.

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SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:**
 - Wear self-contained respiratory protective device.
 - Wear fully protective suit.
- **Additional information** Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
 - Wear protective equipment. Keep unprotected persons away.
 - Ensure adequate ventilation
 - Keep away from ignition sources.
- **6.2 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.
- **6.3 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
 - Dispose contaminated material as waste according to item 13.
- **6.4 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.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
 - Keep receptacles tightly sealed.
 - Use only in well ventilated areas.
- **Information about fire - and explosion protection:**
 - Protect from heat.
 - Keep ignition sources away - Do not smoke.
 - Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.

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- **Information about storage in one common storage facility:**
Do not store together with oxidizing and acidic materials.
Store away from foodstuffs.
- **Further information about storage conditions:**
Store in cool, dry conditions in well sealed receptacles.
Store receptacle in a well ventilated area.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

110-54-3 n-hexane

IOELV (EU) 72 mg/m³, 20 ppm
 PEL (USA) 1800 mg/m³, 500 ppm
 REL (USA) 180 mg/m³, 50 ppm
 TLV (USA) 176 mg/m³, 50 ppm
 Skin; BEI
 EL (Canada) 20 ppm
 Skin
 EV (Canada) 176 mg/m³, 50 ppm

67-64-1 acetone

IOELV (EU) 1210 mg/m³, 500 ppm
 PEL (USA) 2400 mg/m³, 1000 ppm
 REL (USA) 590 mg/m³, 250 ppm
 TLV (USA) Short-term value: (1782) NIC-1187 mg/m³, (750) NIC-500 ppm
 Long-term value: (1188) NIC-475 mg/m³, (500) NIC-200 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

108-88-3 toluene

PEL (USA) Short-term value: C 300; 500* ppm
 Long-term value: 200 ppm
 *10-min peak per 8-hr shift
 REL (USA) Short-term value: 560 mg/m³, 150 ppm
 Long-term value: 375 mg/m³, 100 ppm
 TLV (USA) 75 mg/m³, 20 ppm
 BEI

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EL (Canada)	20 ppm R
EV (Canada)	20 ppm

- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **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.
- **Respiratory protection:**
Not necessary if room is well-ventilated.
Use suitable respiratory protective device in case of insufficient ventilation.
Use suitable respiratory protective device when high concentrations are present.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Safety glasses

- **Body protection:** Impervious protective clothing

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
Form: Liquid

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Color:	Amber, Black colored
· Odor:	Mild
· Odor threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	Not Determined.
Boiling point/Boiling range:	66 °C / 151 °F
· Flash point:	-18 °C / 0 °F
· Flammability (solid, gaseous):	Not applicable.
· Auto/Self-ignition temperature:	240 °C / 464 °F
· Decomposition temperature:	Not determined.
· Self-igniting:	Product is not self-igniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits:	
Lower:	1,2 Vol %
Upper:	13,0 Vol %
· Vapor pressure at 20 °C:	233 hPa (175 mm Hg - [Estimated])
· Density at 20 °C:	0,81 g/cm ³
· Relative density	Not determined.
· 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.
· Solvent content:	
Organic solvents:	448 g/L
VOC content:	79,0 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.

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To avoid thermal decomposition do not overheat.

- **10.3 Possibility of hazardous reactions**

Reacts with oxygen.

Reacts with oxidizing agents.

Develops readily flammable gases/fumes.

- **10.4 Conditions to avoid** No further relevant information available.

- **10.5 Incompatible materials:** No further relevant information available.

- **10.6 Hazardous decomposition products:**

Carbon monoxide and carbon dioxide

Formaldehyde

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

108-88-3 toluene

Oral LD50 5000 mg/kg (rat)

Dermal LD50 12124 mg/kg (rabbit)

Inhalative LC50/4 h 5320 mg/l (mouse)

- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.

- **on the eye:** Irritating effect.

- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Irritant

Product is suspected to cause damage to fertility.

The product can cause deformations.

Inhalation of concentrated vapors as well as oral intake will lead to anesthesia-like conditions and headache, dizziness, etc.

- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):**

Repr. 2

SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:** No further relevant information available.

- **12.2 Persistence and degradability** A part of the components is biodegradable.

- **12.3 Bio accumulative potential**

Due to the distribution coefficient n-octanol/water an accumulation in organisms is possible.

- **12.4 Mobility in soil** No further relevant information available.

- **Ecotoxicological effects:**

- **Remark:** Toxic for fish

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- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Contact waste processors for recycling information.
Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- **14.1 UN-Number**
- **DOT, ADR, IMDG, IATA** UN1133
- **14.2 UN proper shipping name**
- **DOT, IMDG, IATA** ADHESIVES
- **ADR** 1133 ADHESIVES
- **14.3 Transport hazard class(es)**
- **DOT**
- 
- **Class** 3 Flammable liquids.
- **Label** 3

- **ADR**



- **Class** 3 (F1) Flammable liquids.

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· Label	3
· IMDG, IATA	
	
· Class	3 Flammable liquids.
· Label	3
· 14.4 Packing group	
· DOT, ADR, IMDG, IATA	II
· 14.5 Environmental hazards:	
· Marine pollutant:	No
· 14.6 Special precautions for user	Warning: Flammable liquids.
· Danger code (Keller):	33
· EMS Number:	F-E, S-E
· 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	5L
· Transport category	2
· Tunnel restriction code	D/E
· UN "Model Regulation":	UN1133, ADHESIVES, 3, II

SECTION 15: Regulatory information

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

· Section 355 (extremely hazardous substances):

50-00-0	formaldehyde
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· Section 313 (Specific toxic chemical listings):

110-54-3	n-hexane
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108-88-3	toluene
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· TSCA (Toxic Substances Control Act):

All ingredients are listed.

· Proposition 65 (California):

· Chemicals known to cause cancer:

50-00-0	formaldehyde
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· Chemicals known to cause reproductive toxicity for females:

108-88-3	toluene
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· Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity:

108-88-3 toluene

· Carcinogenic Categories
· EPA (Environmental Protection Agency)

110-54-3 n-hexane

II

67-64-1 acetone

I

108-88-3 toluene

II

· IARC (International Agency for Research on Cancer)

None of the ingredients are listed.

· TLV (Threshold Limit Value established by ACGIH)

67-64-1 acetone

A4

108-88-3 toluene

A4

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients are listed.

· Canada
· Canadian Domestic Substances List (DSL)

All ingredients are listed.

· Canadian Ingredient Disclosure list (limit 0.1%)

None of the ingredients are listed.

· Canadian Ingredient Disclosure list (limit 1%)

All ingredients are listed.

· National regulations:
· Other regulations, limitations and prohibitive regulations
· Substances of very high concern (SVHC) according to REACH, Article 57

None of the ingredients are listed.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 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.

· Relevant phrases

H225 Highly flammable liquid and vapor.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H361d Suspected of damaging the unborn child.

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- H361f Suspected of damaging fertility.
 H373 May cause damage to organs through prolonged or repeated exposure.
 H411 Toxic to aquatic life with long lasting effects.
- R11 Highly flammable.
 R36 Irritating to eyes.
 R38 Irritating to skin.
 R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
 R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 R62 Possible risk of impaired fertility.
 R63 Possible risk of harm to the unborn child.
 R65 Harmful: may cause lung damage if swallowed.
 R66 Repeated exposure may cause skin dryness or cracking.
 R67 Vapors may cause drowsiness and dizziness.

• **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (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
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 ACGIH: American Conference of Governmental Industrial Hygienists
 NFPA: National Fire Protection Association (USA)
 HMIS: Hazardous Materials Identification System (USA)
 WHMIS: Workplace Hazardous Materials Information System (Canada)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 Flam. Liq. 2: Flammable liquids, Hazard Category 2
 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
 Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
 Repr. 2: Reproductive toxicity, Hazard Category 2
 Repr. 2: Reproductive toxicity, Hazard Category 2
 Repr. 2: Reproductive toxicity, Hazard Category 2
 STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
 STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2
 Asp. Tox. 1: Aspiration hazard, Hazard Category 1
 Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2