

Safety Data Sheet

according to Regulation (EC) 1907 / 2006

AEROSEAL TF/HT

Date of issue: 18.11.2013

Version: II

1. Identification of the substance/preparation and of the company/undertaking

Product name: AEROSEAL TF/HT

Use of the product: Solvent borne adhesive for processing of flexible AEROFLEX KKS, SSH and HF insulation material

Manufacturer / Distributor: AEROFLEX Co., Ltd.
111/7, 111/11 Mu 2 Tambol Makhamku, Amphur Nikompattana Rayong, 21180, Thailand
Tel.: +66 3891-7111-120
Fax: +66 3891-7121
e-mail: marketing@aeroflex.co.th

2. Hazards identification

Hazard designation: Highly flammable. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Irritating to eyes and skin. Vapours may cause drowsiness and dizziness.
Classification: F ; R11 N ; R 51/53 Xi ; R 36/38 R 67 R66

Additional information: At use formation of explosive / highly flammable vapour-air mixtures is possible.

Labelling in accordance with EC-Regulations:



F; Highly flammable



Xi; Irritant



N; Dangerous for the environment

3. Composition/information on ingredients

Hazardous ingredients:

ETHYL ACETATE

REACH registration No: 01-2119475103-46

EC-No.: 205-500-4; CAS-Nr.: 141-78-6

Weight fraction: 0 – 10%

Classification: F; R11 Xi; R36 R67 R66

Classification CLP: Flam. Liq. 2 ; H225 Eye Irrit. 2 ; H319
STOT SE 3 ; H336

ACETONE

REACH registration No.: 01-2119471330-49

EC-No.: 200-662-2; CAS-No.: 67-64-1

Weight fraction: 10 – 30%

Classification: F; R11 Xi; R36 R67 R66

Classification CLP: Flam. Liq. 2 ; H225 Eye Irrit. 2 ; H319
STOT SE 3 ; H336

Safety Data Sheet

according to Regulation (EC) 1907 / 2006

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Version: II

BUTANONE

REACH registration No.: 01-2119457290-43

EC-No.: 201-159-0; CAS-No.: 78-93-3

Weight fraction: 1 – 5%

Classification: F; R11 Xi; R36 R67 R66

Classification CLP: Flam. Liq. 2 ; H225 Eye Irrit. 2 ; H319
STOT SE 3 ; H336

Full text of R-, H- and EUH-phrases: see section 16.

4. First-aid measures

In case of inhalation:	Remove casualty to fresh and clean air and at rest. Consult a physician in case of symptoms.
In case of skin contact:	Wash off immediately with plenty of water and soap. In case of skin irritation, consult a physician.
In case of eye contact:	Flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an ophthalmologist.
In case of ingestion:	Do not induce vomiting. Obtain immediately medical attention. Keep at rest.

5. Fire-fighting measures

Suitable extinguishing media:	Carbon dioxide (CO ₂). Extinguishing powder. Water spray. Alcohol resistant foam.
Extinguishing media which must not be used for safety reasons:	Full water jet. Product swims and can be reinflamed on the water surface.
Special hazards arising from the substance or mixture:	May form explosive vapour-air mixtures. May form toxic gases and vapours.
Hazardous combustion products:	Carbon monoxide, carbon dioxide, nitric oxide, hydrogen chloride, various hydrocarbons, phenols, acid smoke and irritant gases.
Additional information:	Use suitable breathing apparatus.

6. Accidental release measures

Personal precautions:	Keep away from ignition sources on account of the organic solvent content and air room well. Do not inhale vapours.
Environmental precautions:	Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.
Methods for cleaning up / taking up:	Collect the product in inert filler (sand, sawdust) and put it in marked closed containers.
Additional information:	Organic solvent contents may be released – keep away from sources of ignition.

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7. Handling and storage

Hints for safe handling:	Use only in well-ventilated areas.
Hints for protection against fire and explosion:	Keep away from sources of ignition – No smoking. Take precautionary measures static discharge.
Further information on storage conditions:	Keep container tightly closed in a cool, well-ventilated place.

8. Exposure controls/personal protection

Additional information on engineering measures: No additional information; see point 7

Occupational exposure limits requiring monitoring:

ETHYL ACETATE; CAS-No.: 141-78-6
NIOSH REL: TWA 400 ppm (1400 mg/m³)
OSHA PEL: TWA 400 ppm (1400 mg/m³)
IDLH 200 ppm (10 % LEL)

ACETONE; CAS-Nr.: 67-64-1
NIOSH REL: TWA 250 ppm (590 mg/m³)
OSHA PEL: TWA 1000 ppm (2400 mg/m³)
IDLH 2500 ppm (10 % LEL)

BUTANONE; CAS-No.: 78-93-3
NIOSH REL: TWA 200 ppm (590 mg/m³)
NIOSH STEL: 300 ppm (885 mg/m³)
OSHA PEL: TWA 200 ppm (590 mg/m³)
IDLH 300 ppm

Personal protection equipment

General health measures: The usual precautionary measures for the handling of chemicals have to be observed. Wash hands before breaks and after work.

Hand protection: In case of direct contact with the adhesive wear protective gloves. Otherwise there is no need for hand protection.
Material: gloves soaked in nitrile or polyvinyl alcohol.
Breakthrough time (maximum wearing time) : The permeation time (max. usage time) of the gloves depends on material and thickness as well as temperature. The data are available from the manufacturer of the specific gloves.

Eye protection: Use goggles when refilling.

9. Physical and chemical properties

Appearance

Physical state:	Viscous fluid
Colour:	Black
Odour:	Characteristic
Melting point / range:	Not applicable.
Boiling point / range:	88°C

Safety Data Sheet

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Flash point:	16°C
Self ignition point:	630°C
Lower explosion limit:	2,6 %
Upper explosion limit:	18 %
Vapour pressure:	23,2 kPa
Density:	(30°C) ca. 910-920 kg/m ³
Water solubility:	insoluble

10. Stability and reactivity

Thermal stability:	Stable
Conditions to avoid:	Avoid flames, sparks and other sources of ignition.
Hazardous decomposition products:	No dangerous decomposition products during appropriate storage and handling.
Hazardous polymerization:	Product does not polymerise.

11. Toxicological information

Ethyl acetate	141-78-6
RTECS:	AH5425000
By mouth:	LD50 5620 mg/kg (rat)
On skin:	LD50 20 mg/kg (rabbit) LdLo 1500 ppm/90 day (rat)
Acetone	67-64-1
RTECS:	AL315000
By mouth:	LD50 5800 mg/kg (rat)
On skin:	LD50 >9400 µl/kg (cavy) LdLo 30000 mg/m ³ /2 hours (rat); depends on behaviour
Butanone	78-93-3
RTECS:	EL6475000
By mouth:	LD50 2737 mg/kg (rat)
On skin:	LD50 6480 mg/kg (rabbit) LD50 235000 mg/m ³ /8 hours (rat)

12. Ecological information

According to directive 76/464/EEC the product is classified as non-hazardous to waters.
The product is insoluble in water (see point 9). Do not allow to enter drains.

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13. Disposal considerations

Disposal product:

Recommendation: Dispose of in agreement with local, regional and national legislation.

Waste codes / waste designations according to EWC: **08 04 09***: Waste adhesives and sealants containing organic solvents or other dangerous substances.

Disposal package:

Dispose of in agreement with local, regional and national legislation. Handle contaminated packages in the same way as the substance itself.

14. Transport information

UN number: UN 1133 (flammable liquid)

Sea transport (IMDG) 3, 2

Air transport (IATA) 3

15. Regulatory information

Labelling

Hazardous ingredients:

Ingredient	Weight fraction	hazard class	R-Phrases	S-Phrases
Acetone	10-30 %	F, Xi	11, 36, 66, 67	(2), 23, 24, 45, 53, 6, 2
Butanone	20-40 %	F, Xi	11, 36, 66, 67	(2), 23, 24, 45, 53, 6, 2
Ethyl Acetate	0-10 %	F, Xi	11, 36, 66, 67	(2), 23, 24, 45, 53, 6, 2

16. Other information

Key literature references and sources for data

Regulations for prevention of accidents, safety rules and recommendations provided by professional associations. Observe technical data sheet.

Relevant H- and EUH-phrases (Number and full text)

- H225 Highly flammable liquid and vapour.
- H304 May be fatal if swallowed and enters airways.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.

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R-Phrases

- 11 Highly flammable.
- 36 Irritating to eyes.
- 36/38 Irritating to eyes and skin.
- 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- 65 Harmful: may cause lung damage if swallowed.
- 66 Repeated exposure may cause skin dryness or cracking.
- 67 Vapours may cause drowsiness and dizziness.

S-Phrases

- 16 Keep away from sources of ignition. - No smoking.
- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 29 Do not empty into drains.
- 33 Take precautionary measures against static discharge.
- 51 Use only in well-ventilated areas.
- 61 Avoid release to the environment. Refer to special instructions / safety data sheet.

Training advice

When working with hazardous materials, regular training of operators is required by law.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.