

MATERIAL SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 of the European Parliament and of the Council

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 Identification of the substance or preparation	TEMP CHIPS ADHESIVE (product code: TORA)
1.2 Use of the substance/preparation:	Adhesive for retentions
1.3 Company/undertaking identification:	Micerium S.p.A Via G. Marconi 83 16036 Avegno (GE) -Italy Phone: +39. 0185. 7887870 fax +39. 0185. 7887970
1.4 Emergency telephone:	Poison Control Center San Martino Hospital (Genova, Italy) Phone: +39 010 352808 (available 24 hours/ 24)

2. HAZARDS IDENTIFICATION

Most important hazards:



F Highly flammable



Xn Harmful by inhalation

Physical – chemical hazards:	None
Hazards for human health:	Inhalation may produce organic disease.
Eyes:	None
Skin:	Prolonged exposure in contact with the skin may produce Dermatitis by degreasing
Inhalation:	Irritation of the mucous membranes and anesthetic effect associated with high concentration of the product.
Ingestion:	Nausea with vomiting. Danger of Inhalation.
Over-exposure signs and symptoms:	None
Chronic effects:	None
Hazards for environment:	None

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Main ingredients:	Solvent and Bonding agent				
3.2 Dangerous ingredients:	Common name for the compound	CAS-number	Content	Symbol	R-phrases *
	Ethylacetate	000141-78-6	20-80%	F	11
	Toluene	000108-88-3	15-40%	F Xn	11-20

* full text of R and S-Phrases can be found under heading 16

4. FIRST AID MEASURES

Immediate medical attention need:	In case of inhalation, ingestion, eye contact
Measure to be adopted when:	
- It contacts eyes:	Flush open eyes with copious water. Obtain medical attention.
- It contacts skin:	Wash affected area with soap and water.
- Inhaled:	Fresh air; keep respiratory tract clear. Obtain medical attention if required.
- Contamination of clothing	Contaminated clothing are to be changed immediately.
- Ingested:	Rinse mouth properly and drink plenty of water together with active carbon. Do not induce vomiting. Obtain medical attention.

5. FIRE-FIGHTING MEASURES

General information: None

Legend: NA = not applicable; ND = not available data

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Suitable extinguishing media: Waterfog, foam, carbon dioxide, dry chemical.

Extinguishing media which shall not be used for safety reasons: Water jet.

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases: NA

Special protective equipment for fire-fighters: None

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Provide for efficient ventilation.

Environmental precautions: Do not allow product to reach sewage system.

Measures for cleaning/collecting: In case of spilling or leaking of small amounts sweep up with absorbent material (such as universal binding powder); store separately in tightly sealed containers and dispose in sanitary landfill.

7. HANDLING AND STORAGE

7.1 Handling: Information for safety handling:
Provide for efficient ventilation respectively for local exhaust at the workplace. Damps are heavier-than-air.

Information about protection against explosions and fires: Damps and fogs together with air can form explosive mixtures. Store away from annealing materials. Take precautionary measures against static discharges.

7.2 Storage: Requirements to be met by storerooms and containers: Keep containers tightly closed in a cool and well ventilated place.

7.3 Specific use(s): NA

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Exposure limit values: Components with limit values that require monitoring at the workplace:

Common name for the compound	CAS-number	Mark	Top category
Ethylacetate	000141-78-6	94-1400mg/m ³	I
Toluene	000108-88-3	94-190mg/m ³	II,2

8.2 Exposure controls:

8.2.1 Occupational exposure controls:

8.2.1.a Respiratory protection: In case of damage use breathing protection, filter A.

8.2.1.b Hand protection: Protective Gloves.

8.2.1.c Eye protection: Safety glasses.

8.2.1.d Skin protection: NA

8.2.2 Environmental exposure controls: General protective and hygienic measures: Take off immediately contaminated clothing. Preventive protection of the skin is required. Wash hands when work is finished.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 General information:

Physical state: Fluid (Other form: Viscous)

Colour: Almost transparent, except for TRUW which is white

Odour: Characteristic.

9.2 Important health, safety and environmental information: Data are applicable to Ethylacetate

pH:		Density:	0.93g/cm ³ (at 20°C)
Boiling point/boiling range:	77.1°C (170.8°F)	Solubility:	ND
Flash point:	-83°C (-117.4°F)	Water solubility:	Hardly soluble at 20°C
Flammability (solid, gas):	ND	Partition coefficient: n-octanol/water:	ND
Explosive properties:	2.1-11.5% V	Viscosity:	ND
Oxidising properties:	ND	Vapour density:	ND
Vapour pressure:	50mbar (at 20°C)	Evaporation rate:	ND

9.3 Other information:

Miscibility:	ND	Melting point/melting range:	ND
Fat solubility (solvent — oil to be specified):	ND	Gas group:	ND
Conductivity:	ND	Auto-ignition temperature	430°C (806°F)

10. STABILITY AND REACTIVITY

10.1 Conditions to avoid:	NA
10.2 Materials to avoid:	NA
10.3 Hazardous decomposition products:	No reactions if used according to specifications.

11. TOXICOLOGICAL INFORMATION

LD/LC50 values relevant for classification:	ND
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11.1 Immediate effects due to:

11.1.1 Skin/ eye contact:	NA
11.1.2 Inhalation:	Irritation of the mucous membranes and anesthetic effect associated with high concentration of the product.
11.1.3 Eye contact	NA
11.1.4 Ingestion:	Nausea with vomiting. Danger of inhalation.

11.2 Delayed effects due to:

11.2.1 Skin/ eye contact:	NA
11.2.2 Inhalation:	NA
11.2.3 Ingestion:	NA

11.3 Chronic effects due to:

11.3.1 Skin/ eye contact:	Prolonged exposure in contact with the skin may produce Dermatitis by degreasing.
11.3.2 Inhalation:	NA
11.3.3 Ingestion:	NA

11.4 Sensitizing effects:

11.5 Carcinogenicity, mutagenicity and reproductive toxicity:	NA
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Other toxicological information:	NA
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12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity:	ND
12.2 Mobility:	ND
12.3 Persistence and degradability:	ND
12.4 Bioaccumulative potential:	ND
12.5 Results of PBT assessment	ND
12.6 Other adverse effects:	Do not allow product to reach sewage system. Possible risks of effect on fish isn't to be excluded.

13. DISPOSAL CONSIDERATIONS

Reccomendation: Disposal must be made according to official regulations.

14. TRANSPORT INFORMATION

14.1 By sea (IMDG):		GGV Sea Class: 3.2 <u>Interland shipping trans (ADN/ADNR):</u> Class: 3. Number/letter:3
14.2 By road (ADR) and by rail (RID):		GGVS/GGVE Class: 3 Number/letter:3b Danger Number: 33 <u>Additional Information: RID Class/Number: 3/3b</u>
14.3 By Air (ICAO / IATA):		Class: 3 UD/ID Number: 1263 PG: III

15. REGULATORY INFORMATION

Labelling according to EU guidelines: F Highly Flammable. Xn low toxic rate.

16. OTHER INFORMATION

16.1 List of relevant R phrases:	R11: Highly flammable R20: Harmful by inhalation
16.2 Training advice:	NA
16.3 Recommended restrictions on use:	Only for professional use
16.4 Further information:	S-phrases: S16: Keep away from sources of ignition - No smoking S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
16.5 Sources of key data used to compile the Safety Data Sheet:	The information contained herein describe exclusively the safety requirements of the product and are based on our and our suppliers present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.
16.6 Changes from the previous version (if available):	NA
16.7 Released by:	Micerium S.p.A.