

## 1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name:** Thermaflex Glue
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the preparation** Spray adhesive.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
SABA Dinxperlo BV  
Industriestraat 3  
NL-7091 DC Dinxperlo  
The Netherlands
- 
- **P.O Box 3**  
NL - 7090 AA Dinxperlo  
The Netherlands
- 
- **Tel.:** +31 315 65 89 99  
**Fax:** +31 315 65 32 07  
**E-mail:** info@saba.nl  
**Internet:** www.saba.nl
- **Further information obtainable from:** Drs. J.W. Diesveld (e-mail: j.diesveld@saba.nl)
- **Emergency telephone number:** Tel.: +31 315 65 89 99

## 2 Hazards identification

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



GHS02 flame

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



GHS09 environment

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



GHS07

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

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



Xi; Irritant

R36/38: Irritating to eyes and skin.



F; Highly flammable

R11: Highly flammable.



N; Dangerous for the environment

(Contd. on page 2)

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 24.04.2013

Revision: 04.04.2012

**Trade name: Thermaflex Glue**

(Contd. of page 1)

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

R67: Vapours 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.

· **Classification system:**

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

· **Label elements**

· **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· **Code letter and hazard designation of product:**

Xi Irritant

F Highly flammable

N Dangerous for the environment

· **Risk phrases:**

11 Highly flammable.

36/38 Irritating to eyes and skin.

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

67 Vapours may cause drowsiness and dizziness.

· **Safety phrases:**

23 Do not breathe vapour/spray.

38 In case of insufficient ventilation, wear suitable respiratory equipment.

61 Avoid release to the environment. Refer to special instructions/safety data sheets.

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

### 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

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

· **Dangerous components:**

	hydrocarbons, C6, isoalkanes, <5% n-hexane Xi R65;  Xi R38;  F R11;  N R51/53 R67 <hr style="border-top: 1px dashed black;"/> Flam. Liq. 2, H225;  Asp. Tox. 1, H304;  Aquatic Chronic 2, H411;  Skin Irrit. 2, H315; STOT SE 3, H336	28.86%
CAS: 110-82-7 EINECS: 203-806-2	cyclohexane Xi R65;  Xi R38;  F R11;  N R50/53 R67 <hr style="border-top: 1px dashed black;"/> Flam. Liq. 2, H225;  Asp. Tox. 1, H304;  Aquatic Acute 1, H400; Aquatic Chronic 1, H410;  Skin Irrit. 2, H315; STOT SE 3, H336	21.82%
CAS: 141-78-6 EINECS: 205-500-4	ethyl acetate Xi R36;  F R11 R66-67 <hr style="border-top: 1px dashed black;"/> Flam. Liq. 2, H225;  Eye Irrit. 2, H319; STOT SE 3, H336	21.18%

(Contd. on page 3)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 24.04.2013

Revision: 04.04.2012

**Trade name: Thermaflex Glue**

(Contd. of page 2)

CAS: 67-64-1 EINECS: 200-662-2	acetone Xi R36; F R11 R66-67 Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	5.93%
CAS: 51839-25-9 EINECS: 257-467-0	basic zinc carbonate N R50 Aquatic Acute 1, H400	0.22%

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

#### 4 First aid measures

- **Description of first aid measures**
- **General information:** Take affected persons out of danger area and lay down.
- **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.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**  
Rinse out mouth and then drink plenty of water.  
Do not induce vomiting; call for medical help immediately.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

#### 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fire with alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture**  
In case of fire, the following can be released:  
Hydrogen chloride (HCl)  
Carbon monoxide and carbon dioxide  
Metal oxides.
- **Advice for firefighters**
- **Protective equipment:**  
Wear fully protective suit.  
Wear self-contained respiratory protective device.  
Do not inhale explosion gases or combustion gases.

#### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Keep people at a distance and stay on the windward side.  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.

(Contd. on page 4)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 24.04.2013

Revision: 04.04.2012

**Trade name: Thermaflex Glue**

(Contd. of page 3)

- **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**  
Store in cool, dry place in tightly closed receptacles.  
Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Store only in the original receptacle.  
Store in a cool location.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** No further relevant information available.

**8 Exposure controls/personal protection**

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

<b>Ingredients with limit values that require monitoring at the workplace:</b>	
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<b>110-82-7 cyclohexane</b>	
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WEL	Short-term value: 1050 mg/m <sup>3</sup> , 300 ppm Long-term value: 350 mg/m <sup>3</sup> , 100 ppm
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<b>141-78-6 ethyl acetate</b>	
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WEL	Short-term value: 400 ppm Long-term value: 200 ppm
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<b>67-64-1 acetone</b>	
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WEL	Short-term value: 3620 mg/m <sup>3</sup> , 1500 ppm Long-term value: 1210 mg/m <sup>3</sup> , 500 ppm
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- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
The usual precautionary measures are to be adhered to when handling chemicals.  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Do not inhale gases / fumes / aerosols.  
Avoid contact with the eyes and skin.
- **Respiratory protection:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.  
Use suitable respiratory protective device in case of insufficient ventilation.  
Short term filter device:  
Filter AX

(Contd. on page 5)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 24.04.2013

Revision: 04.04.2012

**Trade name: Thermaflex Glue**

(Contd. of page 4)

**· Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
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 can not 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.

**· For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**

Neoprene gloves

**· Eye protection:**

Tightly sealed goggles

**· Body protection: Protective work clothing****9 Physical and chemical properties****· Information on basic physical and chemical properties****· General Information****· Appearance:****Form:** Liquid**Colour:** Green**· Odour:** Characteristic**· pH-value:** Not applicable.**· Change in condition****Boiling point/Boiling range:** > 48 °C**· Flash point:** 0 °C**· Flammability (solid, gaseous):** Not applicable.**· Ignition temperature:** 200 °C**· Self-igniting:** Product is not selfigniting.**· Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.**· Explosion limits:****Lower:** 1.0 Vol %**Upper:** 13.0 Vol %**· Vapour pressure at 20 °C:** 250 hPa**· Density at 20 °C:** 0.84 g/cm<sup>3</sup>**· Solubility in / Miscibility with water:**

Not miscible or difficult to mix.

(Contd. on page 6)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 24.04.2013

Revision: 04.04.2012

**Trade name: Thermaflex Glue**

(Contd. of page 5)

· <b>Viscosity:</b> <b>Dynamic at 20 °C:</b>	250 mPas
· <b>Solvent content:</b> <b>Organic solvents:</b> <b>Water:</b> <b>VOC (EC)</b>	77.8 % 0.5 % 77.81 %
· <b>Solids content:</b> · <b>Other information</b>	21.7 % The physical data presented above are typical values and should not be construed as a specification.

**10 Stability and reactivity**

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions**  
Decomposes with water, acids and alkalis.  
Violent reactions with strong alkalis and oxidizing agents.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**  
Hydrogen chloride (HCl)  
Carbon monoxide and carbon dioxide

**11 Toxicological information**

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values relevant for classification:****hydrocarbons, C6, isoalkanes, <5% n-hexane**

Oral	LD50	> 5000 mg/kg (rat)
Dermal	LD50	> 3000 mg/kg (rabbit)
Inhalative	LC50/4 h	> 20 mg/l (rat)

**110-82-7 cyclohexane**

Oral	LD50	> 5000 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rabbit)
Inhalative	LC50/4 h	14 mg/l (rat)

**141-78-6 ethyl acetate**

Oral	LD50	4100 mg/kg (mouse)
		> 5000 mg/kg (rat)
Dermal	LD50	4935 mg/kg (rabbit)
		> 5000 mg/kg (rabbit)
Inhalative	LC50/4 h	31.0 mg/l (mouse)
		> 50 mg/l (rat)

**67-64-1 acetone**

Oral	LD50	>3000 mg/kg (mouse)
		>5000 mg/kg (rat)
Dermal	LD50	>5000 mg/kg (rat)

(Contd. on page 7)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 24.04.2013

Revision: 04.04.2012

**Trade name: Thermaflex Glue**

(Contd. of page 6)

Inhalative	LC50/4 h	>15000 mg/kg (rabbit) 76 mg/l (rat)
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- **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

**12 Ecological information**· **Toxicity**· **Aquatic toxicity:****110-82-7 cyclohexane**

EC50 (48h) | 0.9 mg/l (daphnia)

**141-78-6 ethyl acetate**

EC50 | &gt; 164 mg/kg (daphnia)

**67-64-1 acetone**

EC50 | 39 mg/kg (daphnia)

- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **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
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

**13 Disposal considerations**

- **Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **European waste catalogue**

08 04 09\* | waste adhesives and sealants containing organic solvents or other dangerous substances

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

GB

(Contd. on page 8)

**Safety data sheet**  
according to 1907/2006/EC, Article 31






Printing date 24.04.2013

Revision: 04.04.2012

Trade name: *Thermaflex Glue*

(Contd. of page 7)

**14 Transport information**

· <b>UN-Number</b> · <b>ADR, IMDG, IATA</b>	UN1133
· <b>UN proper shipping name</b> · <b>ADR</b> · <b>IMDG</b> · <b>IATA</b>	1133 ADHESIVES, ENVIRONMENTALLY HAZARDOUS, special provision 640H ADHESIVES (HEXANES, CYCLOHEXANE), MARINE POLLUTANT ADHESIVES
· <b>Transport hazard class(es)</b> · <b>ADR</b>	
 	
· <b>Class</b> · <b>Label</b>	3 (F1) Flammable liquids. 3
· <b>IMDG</b>	
 	
· <b>Class</b> · <b>Label</b>	3 Flammable liquids. 3
· <b>IATA</b>	
	
· <b>Class</b> · <b>Label</b>	3 Flammable liquids. 3
· <b>Packing group</b> · <b>ADR, IMDG, IATA</b>	III
· <b>Environmental hazards:</b> · <b>Marine pollutant:</b> · <b>Special marking (ADR):</b>	Product contains environmentally hazardous substances: cyclohexane, hydrocarbons, C6, isoalkanes, <5% n-hexane Yes Symbol (fish and tree) Symbol (fish and tree)
· <b>Special precautions for user</b> · <b>Danger code (Kemler):</b> · <b>EMS Number:</b>	Warning: Flammable liquids. 33 F-E,S-D
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b> · <b>Excepted quantities (EQ):</b> · <b>Limited quantities (LQ)</b> · <b>Transport category</b> · <b>Tunnel restriction code</b>	E1 5L 3 D/E

(Contd. on page 9)

GB



**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 24.04.2013

Revision: 04.04.2012

**Trade name: Thermaflex Glue**

(Contd. of page 8)

· **UN "Model Regulation":** UN1133, ADHESIVES, special provision 640H, ENVIRONMENTALLY HAZARDOUS, 3, III

**15 Regulatory information**

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

**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 vapour.*
- H304 *May be fatal if swallowed and enters airways.*
- H315 *Causes skin irritation.*
- H319 *Causes serious eye irritation.*
- H336 *May cause drowsiness or dizziness.*
- H400 *Very toxic to aquatic life.*
- H410 *Very toxic to aquatic life with long lasting effects.*
- H411 *Toxic to aquatic life with long lasting effects.*
- R11 *Highly flammable.*
- R36 *Irritating to eyes.*
- R38 *Irritating to skin.*
- R50 *Very toxic to aquatic organisms.*
- R50/53 *Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.*
- R51/53 *Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.*
- R65 *Harmful: may cause lung damage if swallowed.*
- R66 *Repeated exposure may cause skin dryness or cracking.*
- R67 *Vapours may cause drowsiness and dizziness.*

· **Contact:** Drs. J.W. Diesveld· **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*
- IATA: *International Air Transport Association*
- GHS: *Globally Harmonized System of Classification and Labelling of Chemicals*
- VOC: *Volatile Organic Compounds (USA, EU)*
- LC50: *Lethal concentration, 50 percent*
- LD50: *Lethal dose, 50 percent*