

Material Safety Data Sheet

Issue Date 24/08/2003

1 Identification of substance:

?? **Product details:**

?? **Trade name:** **Bonding agent S**

?? **Manufacturer/Importer/Supplier:**

Siegling Australia Pty Ltd ABN 50 003 038 640
Unit 150 45 Gilby Road
Mt Waverley. Vic. 3149

?? **Information department:**

Marketing Services Ph: 03 9558 8366 Fax (03) 9558 9360
email warren.billson@siegling-asia.com
<http://www.siegling.com.au>

2 Composition/Data on components:

?? **Chemical characterization**

?? **Description:**

Mixture of the substances listed below with nonhazardous additions.

Dangerous components:

78-10-4 tetraethyl orthosilicate #163 2.5 %

108-88-3 toluene #163 2.5 %

* **3 Hazards identification**

- ?? **Hazard description:** Highly flammable
- ?? **Information pertaining to particular dangers for man and environment**
Highly flammable.
- ?? **Classification system**
The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.
- ?? **NFPA ratings (scale 0-4)**
Health = 3
Fire = 3
Reactivity = 0

4 First aid measures

- ?? **After inhalation**
Supply fresh air; consult doctor in case of complaints.
- ?? **After skin contact** Generally the product does not irritate the skin.
- ?? **After eye contact**
Rinse opened eye for several minutes under running water.
- ?? **After swallowing** If symptoms persist consult doctor.

* **5 Fire fighting measures**

- ?? **Suitable extinguishing agents**
CO₂, sand, extinguishing powder. Do not use water.
- ?? **For safety reasons unsuitable extinguishing agents**
Water.
Water with full jet.
- ?? **Protective equipment:** No special measures required.

* **6 Accidental release measures**

- ?? **Person-related safety precautions:**
Wear protective equipment. Keep unprotected persons away.
- ?? **Measures for environmental protection:**
Do not allow product to reach sewage system or any water course.
Prevent seepage into sewage system, workpits and cellars.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.

- ?? **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents

* **7 Handling and storage**

- ?? **Handling**
?? **Information for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
?? **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- ?? **Storage**
?? **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
?? **Information about storage in one common storage facility:** Not required.
?? **Further information about storage conditions:**
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.

8 Exposure controls and personal protection

- ?? **Additional information about design of technical systems:**
No further data; see item 7.
- Components with limit values that require monitoring at the workplace:**
78-10-4 tetraethyl orthosilicate
TLV: 85 mg/m³, 10 ppm
- 108-88-3 toluene
TLV: 188 mg/m³, 50 ppm
- ?? **Additional information:**
The lists that were valid during the creation were used as basis.
- ?? **Personal protective equipment**
?? **General protective and hygienic measures**
Wash hands before breaks and at the end of work.
?? **Breathing equipment:** Not required.
?? **Protection of hands:** Not required.
?? **Eye protection:** Tightly sealed goggles.

* **9 Physical and chemical properties:**

?? **Form:** Fluid

?? **Color:** According to product specification

?? **Odor:** Characteristic

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	<u>Value/Range</u>	<u>Unit</u>	<u>Method</u>
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?? **Change in condition**

?? **Melting point/Melting range:** undetermined

?? **Boiling point/Boiling range:** 98 ° C

?? **Flash point:** 2 ° C

?? **Ignition temperature:** 220 ° C

?? **Auto igniting:** Product is not selfigniting.

?? **Danger of explosion:**

Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

?? **Explosion limits:**

?? **Lower:** 0.7 Vol %

?? **Upper:** 7.0 Vol %

?? **Vapor pressure:** at 20 ° C 2.6 hPa

?? **Density:** at 20 ° C 0.747 g/cm3

?? **Solubility in / Miscibility with**

?? **Water:** Not miscible or difficult to mix

?? **Solvent content:**

?? **Organic solvents:** 52.5 %

10 Stability and reactivity

?? **Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

?? **Dangerous reactions** No dangerous reactions known

?? **Dangerous products of decomposition:**

No dangerous decomposition products known

11 Toxicological information

- ?? **Acute toxicity:**
- ?? **Primary irritant effect:**
- ?? **on the skin:** No irritant effect. **on the eye:** No irritating effect.
- ?? **Sensitization:** No sensitizing effects known.

12 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.

13 Disposal considerations

- ?? **Product:**
- ?? **Recommendation**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- ?? **Uncleaned packagings:**
- ?? **Recommendation:**
Disposal must be made according to official regulations.

***14 Transport information**

- ?? **DOT regulations:**
- ?? **Hazard class:** 3
- ?? **Identification number:** UN1993
- ?? **Packing group:** II
- ?? **Proper shipping name (technical name):**
 Flammable liquid, n.o.s., spezialbenzin 100/140
- ?? **Land transport ADR/RID (cross-border)**
- ?? **ADR/RID class:** 3 Flammable liquids
- ?? **Item:** 3b
- ?? **Danger code (Kemler):** 33
- ?? **UN-Number:** 1993
- ?? **Description of goods:** Flammable liquid, n.o.s., spezialbenzin
 100/140

?? **Maritime transport IMDG:**
 ?? **IMDG Class:** 3.2
 ?? **Page:** 3230
 ?? **UN Number:** 1993
 ?? **Packaging group:** II
 ?? **EMS Number:** 3-07
 ?? **MFAG:** 340
 ?? **Marine pollutant:** No
 ?? **Proper shipping name:** Flammable liquid, n.o.s., spezialbenzin
 100/140

?? **Air transport ICAO-TI and IATA-DGR:**
 ?? **ICAO/IATA Class:** 3
 ?? **UN/ID Number:** 1993
 ?? **Packaging group:** II
 ?? **Proper shipping name:** Flammable liquid, n.o.s., spezialbenzin
 100/140

*15 Regulations

?? **Markings 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:** Highly flammable

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

?? **Risk phrases:** Highly flammable.

?? **Safety phrases:**
 Keep out of the reach of children. Keep container in a well-ventilated place. Keep away from sources of ignition - No smoking. Do not empty into drains.

?? **National regulations**

?? **Technical instructions (air):**
Class Share in %

II	2.5
III	31.5
NK	50.0

?? **Water hazard class:**
 Water hazard class 2 (Self-assessment): hazardous for water.

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.

?? **Department issuing MSDS:** Marketing Services Australia from data sheet provided by Chemical Laboratory Siegling GmbH 30179 Hanover. Lilienthalstr. 6/8 Tel 0511/6704-0 **Contact** – Andreas Brackman