

**Safety data sheet**  
according to Regulation (EU) 2015/830

Printing date 07.09.2017

Version number 3

Revision: 07.09.2017

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

- **1.1 Product identifier**
- **Trade name:** **PRIMER SF**
- **Article number:** 501106
- **1.2 Relevant identified uses of the substance or mixture and uses advised against** Polyurethane primer
- **Manufacturer/Supplier:**  
VERMEISTER S.p.A.  
Loc. Fornaci  
I-24050 Mornico al Serio (Bergamo)  
Tel. +39/035.4428190 Fax: +39/035.4428075
- **Further information obtainable from:** roberta.fracchiolla@vermeister.com
- **1.4 Emergency telephone number:** +39/035 4428190

**SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
The product is classified according to Reg (EC) No 1272/2008



GHS08 health hazard

- Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Carc. 2 H351 Suspected of causing cancer.
- STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS07

- Skin Irrit. 2 H315 Causes skin irritation.
- Eye Irrit. 2 H319 Causes serious eye irritation.
- Skin Sens. 1 H317 May cause an allergic skin reaction.
- STOT SE 3 H335 May cause respiratory irritation.

- **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** GHS07, GHS08
- **Signal word** Danger

- **Hazard-determining components of labelling:**  
4,4'-methylenediphenyl diisocyanate  
o-(p-isocyanatobenzyl)phenyl isocyanate  
Aromatic polyisocyanate prepolymer  
2,2'-methylenediphenyl diisocyanate  
diphenylmethanediisocyanate, isomeres and homologues  
4-isocyanatosulphonyltoluene

- **Hazard statements**  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H317 May cause an allergic skin reaction.

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*H351 Suspected of causing cancer.**H335 May cause respiratory irritation.**H373 May cause damage to organs through prolonged or repeated exposure.***· Precautionary statements***P260 Do not breathe dust/fume/gas/mist/vapours/spray.**P280 Wear protective gloves/protective clothing/eye protection/face protection.**P284 [In case of inadequate ventilation] wear respiratory protection.**P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**P405 Store locked up.**P501 Dispose of contents/container in accordance with local/regional/national/international regulations.***· Additional information:***Contains isocyanates. May produce an allergic reaction.***· 2.3 Other hazards****· Results of PBT and vPvB assessment****· PBT:** Not applicable.**· vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

**· 3.2 Chemical characterisation: Mixtures****· Description:**

Mixture of hazardous substances according to Reg. (EC) No. 1272/2008 and /or substances with a Community workplace exposure limit and/or substances classified as PBT/vPvB or included in Candidate List listed below

**· Dangerous components:**

CAS: 101-68-8 EINECS: 202-966-0 Reg.nr.: 01-2119457014-47	4,4'-methylenediphenyl diisocyanate ⚠ Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; ⚠ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	25-50%
CAS: 67815-87-6	Aromatic polyisocyanate prepolymer ⚠ Resp. Sens. 1, H334; ⚠ Skin Sens. 1, H317	25-50%
CAS: 5873-54-1 EINECS: 227-534-9 Reg.nr.: 01-2119480143-45	o-(p-isocyanatobenzyl)phenyl isocyanate ⚠ Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; ⚠ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	10-25%
CAS: 2536-05-2 EINECS: 219-799-4	2,2'-methylenediphenyl diisocyanate ⚠ Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; ⚠ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	2.5-10%
CAS: 9016-87-9	diphenylmethanediisocyanate, isomeres and homologues ⚠ Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; ⚠ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	2.5-10%
CAS: 4083-64-1 EINECS: 223-810-8 Reg.nr.: 01-2119980050-47	4-isocyanatosulphonyltoluene ⚠ Resp. Sens. 1, H334; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	≤0.1%

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

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**  
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 and to be sure call for a doctor.  
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:** If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 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.
- **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** Prevent formation of aerosols.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.

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- **Further information about storage conditions:** Keep container tightly sealed.
- **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:**

##### **101-68-8 4,4'-methylenediphenyl diisocyanate**

WEL	Short-term value: 0.07 mg/m <sup>3</sup> Long-term value: 0.02 mg/m <sup>3</sup> Sen; as -NCO
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##### **5873-54-1 o-(p-isocyanatobenzyl)phenyl isocyanate**

WEL	Short-term value: 0.07 mg/m <sup>3</sup> Long-term value: 0.02 mg/m <sup>3</sup> Sen; as -NCO
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##### **2536-05-2 2,2'-methylenediphenyl diisocyanate**

WEL	Short-term value: 0.07 mg/m <sup>3</sup> Long-term value: 0.02 mg/m <sup>3</sup> Sen; as -NCO
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##### **9016-87-9 diphenylmethanediisocyanate, isomeres and homologues**

WEL	Short-term value: 0.07 mg/m <sup>3</sup> Long-term value: 0.02 mg/m <sup>3</sup> Sen; as -NCO
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##### **4083-64-1 4-isocyanatosulphonyltoluene**

WEL	Short-term value: 0.07 mg/m <sup>3</sup> Long-term value: 0.02 mg/m <sup>3</sup> Sen; as -NCO
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- **DNELs**

##### **101-68-8 4,4'-methylenediphenyl diisocyanate**

Oral	DNEL Long-term-systemic effects	20 mg/Kg bw/day (General population)
Dermal	DNEL Long-term-systemic effects	25 mg/Kg bw/day (General population)
	DNEL - Short-term systemic effects	50 mg/Kg/day (Workers) 25 mg/Kg/day (Consumers)
Inhalative	DNEL short-term systemic effects	0.1 mg/m <sup>3</sup> (Workers) 0.05 mg/m <sup>3</sup> (Consumers)
	DNEL Long-term-systemic effects	>0.05 mg/m <sup>3</sup> (General population) 0.05 mg/m <sup>3</sup> (Workers)

- **PNECs**

##### **101-68-8 4,4'-methylenediphenyl diisocyanate**

PNEC	1 mg/Kg d.w. (Soil)
PNEC	1 mg/l (Fresh water)
	0.1 mg/l (Marine water)
	1 mg/l (STP)

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**5873-54-1 o-(p-isocyanatobenzyl)phenyl isocyanate**

PNEC >1 mg/Kg d.w. (Soil)

PNEC >1 mg/l (STP)

>1 mg/l (Fresh water)

>0.1 mg/l (Marine water)

· **Additional information:** The lists valid during the making were used as basis.

· **8.2 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

Avoid contact with the eyes and skin.

· **Respiratory protection:**



Not necessary in well-ventilated environments. In the case of insufficient ventilation, use a mask with a filter type A (EN 14387).

· **Protection of hands:**



Use protective gloves that guarantee complete protection in compliance with standard EN 374.

· **Material of gloves** PVC, neoprene or rubber

· **Eye protection:**



If there is a risk of spray, wear safety spectacles. Eye protection must meet standard EN 166.

· **Body protection:**

No special precautions are required. In any case, wear clothing in cotton or rubber, for example, that guarantees complete protection of the skin.

· **Risk management measures**

All the personal protective equipment must comply with the European reference standards (such as EN 374 for the gloves, EN 166 for the safety spectacles and EN 14387 for the safety mask). Such equipment must be kept in good working order and stored appropriately. The service life of the protective equipment against chemical agents depends on various factors (type of use, climate factors and methods of storage), which may considerably reduce the service life envisaged by the EN standards. Always consult the supplier of the protective equipment. Instruct the worker on how to use the equipment provided.

Thermal risks: None

Environmental exposure controls: None

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### SECTION 9: Physical and chemical properties

#### · 9.1 Information on basic physical and chemical properties

##### · General Information

##### · Appearance:

· <b>Form:</b>	Viscous
· <b>Colour:</b>	Colourless
· <b>Odour:</b>	Characteristic
· <b>Odour threshold:</b>	Not determined.

· **pH-value:** Not determined.

##### · Change in condition

· <b>Melting point/freezing point:</b>	Undetermined.
· <b>Initial boiling point and boiling range:</b>	190°C

· **Flash point:** 111°C

· **Flammability (solid, gas):** Not applicable.

· **Ignition temperature:** 520°C

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Product is not selfigniting.

· **Explosive properties:** Product does not present an explosion hazard.

##### · Explosion limits:

· <b>Lower:</b>	0,4Vol %
· <b>Upper:</b>	0,0Vol %

· **Vapour pressure at 20°C:** 0.1hPa

· **Density at 20°C:** 1.13g/cm<sup>3</sup>

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

· **Partition coefficient: n-octanol/water:** Not determined.

##### · Viscosity:

· **Dynamic:** Not determined.

· **Kinematic at 20°C:** 40s (ISO 4 mm)

· **9.2 Other information** See the product label for information on the provisions of Directive 2004/42/EC about VOCs (if applicable).

### SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available.

· **10.2 Chemical stability**

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **10.3 Possibility of hazardous reactions** No dangerous reactions known.

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

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

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- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

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

#### 101-68-8 4,4'-methylenediphenyl diisocyanate

Oral	LD50	>10,000 mg/kg (rat)
Dermal	LD50	>9,400 mg/kg (rabbit)
	DNEL (short term, local effects)	17.2 mg/cm <sup>2</sup> (Consumers)
Inhalative	DNEL (long term, local effects)	0.05 mg/m <sup>3</sup> (Workers)
		25 mg/m <sup>3</sup> (Consumers)
	DNEL, local effects, short term	0.1 mg/m <sup>3</sup> (Workers)
		25 mg/m <sup>3</sup> (Consumers)

#### 5873-54-1 o-(p-isocyanatobenzyl)phenyl isocyanate

Oral	LD50	>2,000 mg/kg (rat)
Dermal	LD50	>9,400 mg/kg (rabbit)
Inhalative	LC50/4 h	387 mg/l (rat)

#### 9016-87-9 diphenylmethanediisocyanate, isomers and homologues

Dermal	LD50	>9,400 mg/kg (rabbit)
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- **Primary irritant effect:**
- **Skin corrosion/irritation**  
Causes skin irritation.
- **Serious eye damage/irritation**  
Causes serious eye irritation.
- **Respiratory or skin sensitisation**  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause an allergic skin reaction.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity**  
Suspected of causing cancer.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**  
May cause respiratory irritation.
- **STOT-repeated exposure**  
May cause damage to organs through prolonged or repeated exposure.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

Ecological data about the product: not available.

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### · 12.1 Toxicity

#### · Aquatic toxicity:

##### **101-68-8 4,4'-methylenediphenyl diisocyanate**

EC50 (24h) (static)	>1,000 mg/l (Daphnia magna) (OECD 202 Daphnia sp. Acute Immobilisation Test)
EC50 (3h) (static)	>0.1 g/l (Bacteria) (OECD 209 Activated Sludge, Respiration Inhibition)
LC50 (96h)	>1,000 mg/l (Danio rerio) >1,000 mg/l (Fish) (OECD 203 Fish, Acute Toxicity Test)

##### **5873-54-1 o-(p-isocyanatobenzyl)phenyl isocyanate**

EC50 (24h) (static)	>1,000 mg/l (Daphnia magna) (OECD 202)
EC50 (3h) (static)	0.1 g/l (Bacteria) (OECD 209)
LC50 (96h)	>1,000 mg/l (Danio rerio) >1,000 mg/l (Fish) (OECD 203)

### · 12.2 Persistence and degradability

##### **101-68-8 4,4'-methylenediphenyl diisocyanate**

OECD 302C Inherent Biodegradability	0 % (/) (28 days)
Biodegradability	0 % (/)

##### **5873-54-1 o-(p-isocyanatobenzyl)phenyl isocyanate**

OECD 302C Inherent Biodegradability	0 % (/) (28 days)
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### · 12.3 Bioaccumulative potential

##### **101-68-8 4,4'-methylenediphenyl diisocyanate**

BCF (Bioconcentration factor)	200 (/)
LogPow	4.51 (/)

##### **5873-54-1 o-(p-isocyanatobenzyl)phenyl isocyanate**

BCF (Bioconcentration factor)	200 (/)
LogPow	4.51 (/)

### · 12.4 Mobility in soil No further relevant information available.

### · Additional ecological information:

#### · General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

### · 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

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packaging:** Empty containers should be disposed or recovered.

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· **Recommendation:** Disposal must be made according to official regulations.

### SECTION 14: Transport information

· <b>14.1 UN-Number</b> · <b>ADR, IMDG, IATA</b>	Void
· <b>14.2 UN proper shipping name</b> · <b>ADR, IMDG, IATA</b>	Void
· <b>14.3 Transport hazard class(es)</b> · <b>ADR, ADN</b> · <b>Class</b>	Void
· <b>14.4 Packing group</b> · <b>ADR, IMDG, IATA</b>	Void
· <b>14.5 Environmental hazards:</b> · <b>Marine pollutant:</b>	No
· <b>14.6 Special precautions for user</b>	Not applicable.
· <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
· <b>UN "Model Regulation":</b>	Void

### SECTION 15: Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**  
Reg. (EC) No.1907/2006 (REACH) and further modifications;  
Reg. (EC) No. 1272/2008 (CLP) and further modifications;  
Dir. 2004/42/EC (VOC), if applicable.
- **Chemical safety assessment not available**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 56a, 56b, 56c

### 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**  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H335 May cause respiratory irritation.  
H351 Suspected of causing cancer.  
H373 May cause damage to organs through prolonged or repeated exposure.

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**Abbreviations and acronyms:**

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*ICAO: International Civil Aviation Organisation*

*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 Harmonised System of Classification and Labelling of Chemicals*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*DNEL: Derived No-Effect Level (REACH)*

*PNEC: Predicted No-Effect Concentration (REACH)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*Acute Tox. 4: Acute toxicity – Category 4*

*Skin Irrit. 2: Skin corrosion/irritation – Category 2*

*Eye Irrit. 2: Serious eye damage/eye irritation – Category 2*

*Resp. Sens. 1: Respiratory sensitisation – Category 1*

*Skin Sens. 1: Skin sensitisation – Category 1*

*Carc. 2: Carcinogenicity – Category 2*

*STOT SE 3: Specific target organ toxicity (single exposure) – Category 3*

*STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2*