

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

- **Product details**
- **Trade name:** **HANDLFOAM® Comp A**
- **Application of the substance / the preparation** Intermediate
- **Manufacturer/Supplier:**
Temati B.V.
Rijnland 2
NL-1948 RL Beverwijk
Tel: +31 251 229 172
Fax: +31 251 212 380
E-mail: temati@temati.com
- **Further information obtainable from:** Product safety department.
- **Information in case of emergency:** Tel: +31 251 229 172

2 Hazards identification

- **Hazard description:**



Xn Harmful

- **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.

R 20 Harmful by inhalation.

R 36/37/38 Irritating to eyes, respiratory system and skin.

R 42/43 May cause sensitisation by inhalation and skin contact.

Contains isocyanates. See information supplied by the manufacturer

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.

Keep out of the reach of children

- **Classification system:**

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

- **GHS label elements**



Danger

3.4/1 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

3.2/2 - Causes skin irritation.

3.3/2A - Causes serious eye irritation.

3.4/1 - May cause an allergic skin reaction.



Warning

2.5/C - Contains gas under pressure; may explode if heated.



Warning

3.1/4 - Harmful if inhaled.

3.8/3 - May cause respiratory irritation.

- **Prevention:**

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing should not be allowed out of the workplace.

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Wear protective gloves/protective clothing/eye protection/face protection.

In case of inadequate ventilation wear respiratory protection.

· **Response:**

IF ON SKIN: Wash with plenty of soap and water.

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Call a **POISON CENTER** or doctor/physician if you feel unwell.

Specific treatment (see label).

If skin irritation occurs: Get medical advice/attention.

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

If experiencing respiratory symptoms: Call a **POISON CENTER** or doctor/physician.

Take off contaminated clothing and wash before reuse.

Wash contaminated clothing before reuse.

· **Storage:**

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Protect from sunlight. Store in a well-ventilated place.

· **Disposal:**









Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition/information on ingredients

· **Chemical characterization**

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

· **Dangerous components:**

CAS: 101-68-8 EINECS: 202-966-0	diphenylmethane-4,4'-di-isocyanate	25-<50%
	 Xn,  Xi; R 20-36/37/38-42/43	
	Danger:  3.4.R/1, 3.2/2, 3.3/2A, 3.4.S/1 Warning:  3.1.I/4, 3.8/3	
CAS: 9016-87-9	Diphenylmethanediisocyanate, isomeres and homologues	25-<50%
	 Xn,  Xi; R 20-36/37/38-42/43	
	Danger:  3.4.R/1, 3.2/2, 3.3/2A, 3.4.S/1 Warning:  3.1.I/4, 3.8/3	

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

4 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.

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5 Fire-fighting measures

- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray.
Use fire extinguishing methods suitable to surrounding conditions.
- **Protective equipment:**
Wear self-contained respiratory protective device.
Mount respiratory protective device.

6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.

7 Handling and storage

- **Handling:**
- **Information for safe handling:** Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Store in dry conditions.
Keep container tightly sealed.

8 Exposure controls/personal protection

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

- **Ingredients with limit values that require monitoring at the workplace:**

101-68-8 diphenylmethane-4,4'-di-isocyanate (25-<50%)

WEL ()	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen; as -NCO
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9016-87-9 Diphenylmethanediisocyanate, isomeres and homologues (25-<50%)

WEL ()	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen; as -NCO
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811-97-2 Norfluran (5-<10%)

WEL ()	Long-term value: 4240 mg/m ³ , 1000 ppm
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- **CAS No. Designation of material % Type Value Unit**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.

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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.

· **Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **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.

· **Eye protection:**

Tightly sealed goggles

9 Physical and chemical properties

· **General Information**

Form:	Fluid
Colour:	Amber coloured
Odour:	Characteristic

· **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	190°C

· **Flash point:** 201°C (DIN 53213)· **Ignition temperature:** 400°C· **Danger of explosion:** Product does not present an explosion hazard.· **Explosion limits:**

Lower:	0.4 Vol %
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· **Vapour pressure At 20°C:** 0 hPa· **Density At 20°C:** 1.2 g/cm³ (DIN 51757)· **Solubility in / Miscibility with water:**

Not miscible or difficult to mix.

· **Solvent content:**

Organic solvents:	0.0 %
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· **Solids content:** 100.0 % (DIN 53216)· **Additional information:**

VOC (EU):	0.00 %
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VOC (EU): g/l

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions** Reacts with water.
- **Dangerous decomposition products:** No dangerous decomposition products known.

11 Toxicological information· **Acute toxicity:**· **LD/LC50 values relevant for classification:****9016-87-9 Diphenylmethanediisocyanate, isomeres and homologues**

Oral LD50 >2000 mg/kg (RAT)

· **Primary irritant effect:**· **on the skin:** Irritant to skin and mucous membranes.· **on the eye:** Irritating effect.· **Sensitization:**

Sensitization possible through inhalation.

Sensitization possible through skin contact.

· **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:

Harmful

Irritant

· **Sensitisation** May cause sensitisation by inhalation and skin contact.**12 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.

13 Disposal considerations· **Product:**· **Recommendation**

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

· **Uncleaned packaging:**· **Recommendation:** Disposal must be made according to official regulations.**14 Transport information**· **Land transport ADR/RID (cross-border)**· **ADR/RID class:** 2 IA Gases.

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Trade name: **HANDI FOAM(®) Comp A**

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- **Danger code (Kemler):** 20
- **UN-Number:** 1956
- **Hazard label:** 2.2
- **Description of goods:** 1956 COMPRESSED GAS, N.O.S.
- **Limited quantities (LQ) LQ1**
- **Transport category** 3
- **Tunnel restriction code** E

- **Maritime transport IMDG:**



- **IMDG Class:** 2
- **UN Number:** 1956
- **Label** 2.2
- **EMS Number:** F-C,S-V
- **Marine pollutant:** No
- **Proper shipping name:** COMPRESSED GAS, N.O.S.

- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

- **UN "Model Regulation":** UN1956, COMPRESSED GAS, N.O.S., 2.2

15 Regulatory information

- **Labelling according to EU guidelines:**

The product has been marked in accordance with EU Directives / respective national laws.
The R and S phrases may be omitted if packaging contains no more than 0.125 litre.

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



Xn Harmful

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

Diphenylmethanediisocyanate, isomeres and homologues
diphenylmethane-4,4'-di-isocyanate

- **Risk phrases:**

20 Harmful by inhalation.
36/37/38 Irritating to eyes, respiratory system and skin.
42/43 May cause sensitisation by inhalation and skin contact.

- **Safety phrases:**

23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
24 Avoid contact with skin.
37 Wear suitable gloves.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
51 Use only in well-ventilated areas.
60 This material and its container must be disposed of as hazardous waste.

- **Special labelling of certain preparations:**

Contains isocyanates. See information supplied by the manufacturer
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.
Keep out of the reach of children

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- **National regulations:**
- **Technical instructions (air):**

Class	Share in %
I	90.0

- **Waterhazard class:** Water hazard class I (Self-assessment): slightly 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.

- **Relevant R-phrases:**

20 Harmful by inhalation.
 36/37/38 Irritating to eyes, respiratory system and skin.
 42/43 May cause sensitisation by inhalation and skin contact.

- **Department issuing MSDS:** Product safety department.

- **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)

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

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

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

- *** Data compared to the previous version altered.**

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

- **Product details**
- **Trade name:** HANDLFOAM® Comp B.
- **Application of the substance / the preparation** Intermediate
- **Manufacturer/Supplier:**
Temati B.V.
Rijnland 2
NL-1948 RL Beverwijk
Tel: +31 251 229 172
Fax: +31 251 212 380
E-mail: temati@temati.com
- **Further information obtainable from:** Product safety department.
- **Information in case of emergency:** Tel: +31 251 229 172

2 Hazards identification

- **Hazard description:** Not applicable.
- **Information concerning particular hazards for human and environment:**
The product does not have 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.
- **GHS label elements**



Warning

- 2.5/C - Contains gas under pressure; may explode if heated.
- **Storage:**
Protect from sunlight. Store in a well-ventilated place.

3 Composition/information on ingredients

- **Chemical characterization**
- **Description:** Mixture of substances listed below with nonhazardous additions.
- **Dangerous components:** Void
- **Additional information:** For the wording of the listed risk phrases refer to section 16.

4 First-aid measures

- **General information:** No special measures required.
- **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, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:** Wear self-contained respiratory protective device.

Trade name: **HANDI FOAM(®) Comp B.**

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6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:** No special measures required.
- **Additional information:** No dangerous substances are released.

7 Handling and storage

- **Handling:**
- **Information for safe handling:** Use only in well ventilated areas.
- **Information about fire - and explosion protection:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Store in dry conditions.

8 Exposure controls/personal protection

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

- **Ingredients with limit values that require monitoring at the workplace:**

811-97-2 Norfluran (25-<50%)

WEL () Long-term value: 4240 mg/m³, 1000 ppm

- **CAS No. Designation of material % Type Value Unit** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.
- **Respiratory protection:** Not required.
- **Protection of hands:**
Not required.



The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

- **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.

- **Eye protection:** Not required.

9 Physical and chemical properties

- **General Information**

Form:	Fluid Colour:
	Light yellow
Odour:	Characteristic

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GB

Trade name: HANDI FOAM(®) Comp B.

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- | | |
|--|--|
| · Change in condition
<i>Melting point/Melting range: Undetermined.</i>
<i>Boiling point/Boiling range: Undetermined.</i> | |
| · Flash point: | <i>Not applicable.</i> |
| · Self-igniting: | <i>Product is not selfigniting.</i> |
| · Danger of explosion: | <i>Product does not present an explosion hazard.</i> |
| · Density At 20°C: | <i>1.2 g/cm³ (DIN 51757)</i> |
| · Solubility in / Miscibility with water: | <i>Not miscible or difficult to mix.</i> |
| · Solvent content: | |
| Organic solvents: | <i>0.0 %</i> |
| · Solids content: | <i>100.0 % (DIN 53216)</i> |
| · Additional information: | |
| VOC (EU): | <i>0.00 %</i> |
| VOC (EU): | <i>g/l</i> |

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **Dangerous reactions** *No dangerous reactions known.*
- **Dangerous decomposition products:** *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.*
- **Additional toxicological information:**
The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

12 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.

13 Disposal considerations

- **Product:**
- **Recommendation** *Smaller quantities can be disposed of with household waste.*

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

14 Transport information

- **Land transport ADR/RID (cross-border)**



- **ADR/RID class:** 2 1A Gases.
- **Danger code (Kemler):** 20
- **UN-Number:** 1956
- **Hazard label:** 2.2
- **Description of goods:** 1956 COMPRESSED GAS, N.O.S.
- **Limited quantities (LQ) LQ1**
- **Transport category** 3
- **Tunnel restriction code** E

- **Maritime transport IMDG:**



- **IMDG Class:** 2
- **UN Number:** 1956
- **Label** 2.2
- **EMS Number:** F-C,S-V
- **Marine pollutant:** No
- **Proper shipping name:** COMPRESSED GAS, N.O.S.

- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

- **UN "Model Regulation":** UN1956, COMPRESSED GAS, N.O.S., 2.2
- **Transport/Additional information:** Not dangerous according to the above specifications.

15 Regulatory information

- **Labelling according to EU guidelines:**
Observe the general safety regulations when handling chemicals.
The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).
- **National regulations:**
- **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly 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:** Product safety department.

(Contd. on page 5)

Trade name: HANDI FOAM(®) Comp B.

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· **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)

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

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· *** Data compared to the previous version altered.**

GB