



Safety Data Sheet 7CTH46S05 - PU Hardener

Safety Data Sheet dated 22/1/2021, version 1

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

1.1. Product identifier

Mixture identification:

Trade name: PU Hardener

Trade code: 7CTH46S05

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use: Surface coating

1.3. Details of the supplier of the safety data sheet

Company:

Sirca S.p.A.

Address:

Viale Roma, 85

35010 S. Dono di Massanzago (PD) - ITALY

Tel. +39 0499322311

Competent person responsible for the safety data sheet:

safety@sirca.it

1.4. Emergency telephone number

Sirca S.p.A. +39 049 9322311 (08.00 - 17.00) From Monday to Friday

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP):

⚠ Danger, Flam. Liq. 2, Highly flammable liquid and vapour.

⚠ Warning, Eye Irrit. 2, Causes serious eye irritation.

⚠ Warning, Skin Sens. 1, May cause an allergic skin reaction.

⚠ Warning, Repr. 2, Suspected of damaging fertility or the unborn child.

⚠ Warning, STOT SE 3, May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

Adverse physicochemical, human health and environmental effects:

No other hazards known

2.2. Label elements

Hazard pictograms:



Danger

Hazard statements:

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H361 Suspected of damaging fertility or the unborn child.

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H336 May cause drowsiness or dizziness.

Precautionary statements:

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P240 Ground and bond container and receiving equipment.

P243 Take action to prevent static discharges.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P370+P378 In case of fire: Use CO₂, Foam, Chemical powders to extinguish.

P403+P235 Store in a well-ventilated place. Keep cool.

Special Provisions:

EUH066 Repeated exposure may cause skin dryness or cracking.

EUH204 Contains isocyanates. May produce an allergic reaction.

Contains

n-butyl acetate

Alifatic-aromatic polyisocyanate

toluene

butanone

Hesamethylene diisocyanate, oligomerisation product: May produce an allergic reaction.

hexamethylene-di-isocyanate: May produce an allergic reaction.

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

This product contains isocyanates. Producer's specifications are as follows: ready-to-use paints containing isocyanates may irritate mucosae, particularly those of the respiratory system, and may give rise to hypersensitivity reactions. Vapour or aerosol inhalation may lead to sensitization. Please take all the measures used for all solvent-containing paints while manipulating isocyanate-containing paints. Avoid vapour and aerosol inhalation. People with allergic or asthmatic precedents or subject to respiratory disorders should not handle paints containing isocyanates.

Other Hazards:

No other hazards known

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

>= 25% - < 48% n-butyl acetate

REACH No.: 01-2119485493-29-xxxx, Index number: 607-025-00-1, CAS: 123-86-4, EC: 204-658-1

⚠ 2.6/3 Flam. Liq. 3 H226

⚠ 3.8/3 STOT SE 3 H336

EUH066

>= 20% - < 25% Alifatic-aromatic polyisocyanate

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CAS: 26426-91-5
⚠ 3.3/2 Eye Irrit. 2 H319
⚠ 3.4.2/1 Skin Sens. 1 H317

>= 9.9% - < 12.5% 2-methoxy-1-methylethyl acetate
REACH No.: 01-2119475791-29-xxxx, Index number: 607-195-00-7, CAS: 108-65-6, EC:
203-603-9
⚠ 2.6/3 Flam. Liq. 3 H226

>= 9.9% - < 12.5% Hexamethylene diisocyanate, oligomerisation product
CAS: 28182-81-2
⚠ 3.1/4/Inhal Acute Tox. 4 H332
⚠ 3.4.2/1 Skin Sens. 1 H317
⚠ 3.8/3 STOT SE 3 H335

>= 7% - < 9.9% toluene
REACH No.: 01-2119471310-51-xxxx, Index number: 601-021-00-3, CAS: 108-88-3, EC:
203-625-9
⚠ 2.6/2 Flam. Liq. 2 H225
⚠ 3.7/2 Repr. 2 H361d
⚠ 3.10/1 Asp. Tox. 1 H304
⚠ 3.9/2 STOT RE 2 H373
⚠ 3.2/2 Skin Irrit. 2 H315
⚠ 3.8/3 STOT SE 3 H336

>= 5% - < 7% butanone
REACH No.: 01-2119457290-43-xxxx, Index number: 606-002-00-3, CAS: 78-93-3, EC:
201-159-0
⚠ 2.6/2 Flam. Liq. 2 H225
⚠ 3.3/2 Eye Irrit. 2 H319
⚠ 3.8/3 STOT SE 3 H336
EUH066

>= 0.5% - < 1% xylene [isomer mixture]
REACH No.: 01-2119488216-32-xxxx, Index number: 601-022-00-9, CAS: 1330-20-7, EC:
215-535-7
⚠ 2.6/3 Flam. Liq. 3 H226
⚠ 3.10/1 Asp. Tox. 1 H304
⚠ 3.3/2 Eye Irrit. 2 H319
⚠ 3.8/3 STOT SE 3 H335
⚠ 3.9/2 STOT RE 2 H373
⚠ 3.2/2 Skin Irrit. 2 H315
⚠ 3.1/4/Dermal Acute Tox. 4 H312
⚠ 3.1/4/Inhal Acute Tox. 4 H332

>= 0.2% - < 0.25% ethylbenzene
Index number: 601-023-00-4, CAS: 100-41-4, EC: 202-849-4
⚠ 2.6/2 Flam. Liq. 2 H225
⚠ 3.1/4/Inhal Acute Tox. 4 H332
⚠ 3.9/2 STOT RE 2 H373
⚠ 3.10/1 Asp. Tox. 1 H304

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- >= 0.1% - < 0.2% hexamethylene-di-isocyanate
REACH No.: 01-2119457571-37-xxxx, Index number: 615-011-00-1, CAS: 822-06-0, EC:
212-485-8
- ⚠ 3.1/4/Oral Acute Tox. 4 H302
 - ⚠ 3.3/2 Eye Irrit. 2 H319
 - ⚠ 3.1/1/Inhal Acute Tox. 1 H330
 - ⚠ 3.8/3 STOT SE 3 H335
 - ⚠ 3.2/2 Skin Irrit. 2 H315
 - ⚠ 3.4.1/1 Resp. Sens. 1 H334
 - ⚠ 3.4.2/1 Skin Sens. 1 H317

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Induce vomiting only on doctor's advice

In case of Inhalation:

In case of inhalation, consult a doctor immediately and show him packing or label.

4.2. Most important symptoms and effects, both acute and delayed

Contact a poisons centre

4.3. Indication of any immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

In case of fire: Use CO₂, Foam, Chemical powders to extinguish.

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Combustion may liberate toxic or very toxic gases. Do not breathe fumes.

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

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Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures
For non emergency personnel:
Wear personal protection equipment.
Remove all sources of ignition.
Remove persons to safety.
See protective measures under point 7 and 8.
For emergency responders:
Wear personal protection equipment.
- 6.2. Environmental precautions
Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
Retain contaminated washing water and dispose it.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
Suitable material for taking up: absorbing material, organic, sand
Eliminate all unguarded flames and possible sources of ignition. Do not smoke.
- 6.3. Methods and material for containment and cleaning up
Collect the spilled product with no-sparking tools.
- Rapidly recover the product. To do so, wear a mask and protective clothing.
Recover the product for re-use if possible, or for elimination. The product might, where appropriate, be absorbed by inert material.
After the product has been recovered, rinse the area and materials involved with water.
- 6.4. Reference to other sections
See also section 8 and 13

SECTION 7: Handling and storage

- 7.1. Precautions for safe handling
Keep away from flame and sparks. Avoid accumulating electrostatic charge.
Place recipients on the ground whilst decanting, and wear anti-static clothing and shoes.
Avoid contact with skin and eyes, inhalation of vapours and mists.
Exercise the greatest care when handling or opening the container.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
Contaminated clothing should be changed before entering eating areas.
Do not eat or drink while working.
Do not smoke while working.
See also section 8 for recommended protective equipment.
- 7.2. Conditions for safe storage, including any incompatibilities
Always keep in a well ventilated place.
Store at below 30 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.
Keep away from food, drink and feed.
Incompatible materials:
None in particular.
Instructions as regards storage premises:

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Cool and adequately ventilated.

Safety electric system.

7.3. Specific end use(s)

No further recommendations. Refer to point 1.2

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

n-butyl acetate - CAS: 123-86-4

TWA (Italia) - TWA: 150 ppm - STEL: 200 ppm

ACGIH - TWA(8h): 50 ppm - STEL: 150 ppm - Notes: Eye and URT irr

2-methoxy-1-methylethyl acetate - CAS: 108-65-6

(OEL (IT)) - TWA(8h): 275 mg/m³, 50 ppm - STEL: 550 mg/m³, 100 ppm - Behaviour:

Binding - Notes: Pelle

EU - TWA(8h): 275 mg/m³, 50 ppm - STEL: 550 mg/m³, 100 ppm - Notes: Skin

toluene - CAS: 108-88-3

(OEL (IT)) - TWA(8h): 192 mg/m³, 50 ppm - Behaviour: Binding - Notes: Pelle

EU - TWA(8h): 192 mg/m³, 50 ppm - STEL: 384 mg/m³, 100 ppm - Notes: Skin

ACGIH - TWA(8h): 20 ppm - Notes: A4, BEI - Visual impair, female repro, pregnancy loss

butanone - CAS: 78-93-3

(OEL (IT)) - TWA(8h): 600 mg/m³, 200 ppm - STEL: 900 mg/m³, 300 ppm - Behaviour:

Binding

EU - TWA(8h): 600 mg/m³, 200 ppm - STEL: 900 mg/m³, 300 ppm

ACGIH - TWA(8h): 200 ppm - STEL: 300 ppm - Notes: BEI - URT irr, CNS and PNS

impair

xylene [isomer mixture] - CAS: 1330-20-7

(OEL (IT)) - TWA(8h): 221 mg/m³, 50 ppm - STEL: 442 mg/m³, 100 ppm - Behaviour:

Binding - Notes: pelle

EU - TWA(8h): 221 mg/m³, 50 ppm - STEL: 442 mg/m³, 100 ppm - Notes: Skin

ACGIH - TWA(8h): 100 ppm - STEL: 150 ppm - Notes: A4, BEI - URT and eye irr, CNS

impair

ethylbenzene - CAS: 100-41-4

(OEL (IT)) - TWA(8h): 442 mg/m³, 100 ppm - STEL: 884 mg/m³, 200 ppm - Behaviour:

Binding - Notes: pelle

EU - TWA(8h): 442 mg/m³, 100 ppm - STEL: 884 mg/m³, 200 ppm - Notes: Skin

ACGIH - TWA(8h): 20 ppm - Notes: A3, BEI - URT irr, kidney dam (nephropathy),

cochlear impair

hexamethylene-di-isocyanate - CAS: 822-06-0

(OEL (IT)) - TWA: 0.005 ppm

ACGIH - TWA(8h): 0.005 ppm - Notes: URT irr, resp sens

DNEL Exposure Limit Values

n-butyl acetate - CAS: 123-86-4

Worker Professional: 600 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, local effects

Worker Professional: 300 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, local effects

Worker Professional: 11 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Worker Professional: 11 mg/kg - Exposure: Human Dermal - Frequency: Short Term, systemic effects

Consumer: 300 mg/kg - Exposure: Human Inhalation - Frequency: Short Term, local effects

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Consumer: 35.7 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, local effects
Consumer: 6 mg/kg - Exposure: Human Dermal - Frequency: Short Term, systemic effects
Consumer: 2 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
Consumer: 2 mg/kg - Exposure: Human Oral - Frequency: Short Term, systemic effects
2-methoxy-1-methylethyl acetate - CAS: 108-65-6
Worker Professional: 153.5 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Worker Professional: 275 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Consumer: 54.8 mg/kg/day - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Consumer: 33 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Consumer: 1.67 mg/kg/day - Exposure: Human Oral - Frequency: Long Term, systemic effects
Hesamethylene diisocyanate, oligomerisation product - CAS: 28182-81-2
Worker Industry: 0.5 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, local effects
Consumer: 1 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, systemic effects
toluene - CAS: 108-88-3
Consumer: 226 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, systemic effects
Consumer: 226 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, local effects
Consumer: 226 mg/m³ - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Consumer: 56.5 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Consumer: 8.13 mg/Kg-bw/day - Exposure: Human Oral - Frequency: Long Term, systemic effects
Worker Industry: 384 mg/kg/day - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Worker Industry: 384 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, systemic effects
Worker Industry: 192 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
butanone - CAS: 78-93-3
Worker Industry: 1161 mg/Kg-bw/day - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Worker Industry: 600 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Consumer: 412 mg/Kg-bw/day - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Consumer: 106 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Consumer: 31 mg/Kg-bw/day - Exposure: Human Oral - Frequency: Long Term, systemic effects
xylene [isomer mixture] - CAS: 1330-20-7

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Worker Industry: 180 mg/Kg-bw/day - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Worker Industry: 77 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Consumer: 108 mg/Kg-bw/day - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Consumer: 1872 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, local effects

Consumer: 12.5 mg/Kg-bw/day - Exposure: Human Oral - Frequency: Long Term, systemic effects

ethylbenzene - CAS: 100-41-4

Worker Industry: 180 mg/kg/day - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Worker Industry: 293 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, local effects

Worker Industry: 77 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

hexamethylene-di-isocyanate - CAS: 822-06-0

Worker Industry: 0.07 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, systemic effects

Worker Industry: 0.035 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Worker Industry: 0.035 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, local effects

PNEC Exposure Limit Values

n-butyl acetate - CAS: 123-86-4

Target: Fresh Water - Value: 0.18 mg/l

Target: Marine water - Value: 0.018 mg/l

Target: Freshwater sediments - Value: 0.981 mg/kg

Target: Marine water sediments - Value: 0.0981 mg/kg

Target: Soil (agricultural) - Value: 0.0903 mg/kg

Target: STP - Value: 35.6 mg/l

2-methoxy-1-methylethyl acetate - CAS: 108-65-6

Target: Fresh Water - Value: 0.635 mg/l

Target: Marine water - Value: 0.0635 mg/l

Target: Marine water sediments - Value: 0.329 mg/kg - Notes:: dry

Target: Freshwater sediments - Value: 3.29 mg/kg - Notes:: dry

Target: Soil (agricultural) - Value: 0.29 mg/kg - Notes:: dry

Target: STP - Value: 100 mg/l

Hexamethylene diisocyanate, oligomerisation product - CAS: 28182-81-2

Target: STP - Value: 6.46 mg/l

toluene - CAS: 108-88-3

Target: Fresh Water - Value: 0.68 mg/l

Target: Marine water - Value: 0.68 mg/l

Target: Soil (agricultural) - Value: 2.89 mg/kg

Target: Marine water sediments - Value: 16.39 mg/l

Target: Freshwater sediments - Value: 16.39 mg/l

Target: STP - Value: 13.61 mg/l

butanone - CAS: 78-93-3

Target: Marine water - Value: 55.8 mg/l

Target: Fresh Water - Value: 55.8 mg/l

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Target: occasional emission - Value: 55.8 mg/l
Target: STP - Value: 709 mg/l
Target: Freshwater sediments - Value: 284.7 mg/kg dwt
Target: Marine water sediments - Value: 284.7 mg/kg dwt
Target: Soil (agricultural) - Value: 22.5 mg/kg
Target: orally (secondary poisoning) - Value: 1000 mg/kg
xylene [isomer mixture] - CAS: 1330-20-7
Target: Fresh Water - Value: 0.327 mg/l
Target: Fresh Water - Value: 0.327 mg/l
Target: occasional emission - Value: 0.327 mg/l
Target: Microorganisms in sewage treatments - Value: 6.58 mg/l
Target: Soil (agricultural) - Value: 2.31 mg/kg - Notes:: dry
Target: Marine water sediments - Value: 12.46 mg/kg - Notes:: dry
Target: Freshwater sediments - Value: 12.46 mg/kg - Notes:: dry
ethylbenzene - CAS: 100-41-4
Target: Fresh Water - Value: 0.1 mg/l
Target: Marine water - Value: 0.01 mg/l
Target: Freshwater sediments - Value: 13.7 mg/l
Target: Marine water sediments - Value: 13.7 mg/l
Target: occasional emission - Value: 0.1 mg/l
hexamethylene-di-isocyanate - CAS: 822-06-0
Target: Marine water - Value: 0.00774 mg/l
Target: Fresh Water - Value: 0.0774 mg/l
Target: Freshwater sediments - Value: 0.01334 mg/kg - Notes:: Dry weight
Target: Marine water sediments - Value: 0.001334 mg/kg - Notes:: Dry weight
Target: Soil (agricultural) - Value: 0.0026 mg/kg - Notes:: Dry weight
Target: Microorganisms in sewage treatments - Value: 8.42 mg/l

8.2. Exposure controls

Eye protection:

Use eye protection devices. Example: closed safety visors, goggles with side protection. Do not wear contact lenses.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Because of the synergetic effect of the substances contained in the formulation it is not possible to identify a unique material that can resist to their fusion. Multi - layer protective gloves can be suitable for mixes of substances. Pay attention to the data about grade of protection and of permeation rate furnished by the producer of the gloves about the substances listed on point 3 of this sheet.

Respiratory protection:

Use adequate protective respiratory equipment, e.g. A2 or A2P2 or A2P3.

Thermal Hazards:

None known

Environmental exposure controls:

None known

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

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Appearance and colour:	liquid
Odour:	characteristic
Odour threshold:	N.A.
pH:	N.A.
Melting point / freezing point:	< 1° C
Initial boiling point and boiling range:	> 55° C
Solid/gas flammability:	N.A.
Upper/lower flammability or explosive limits:	N.A.
Vapour density:	N.A.
Flash point:	< 23°C (< 73.4 °F)
Evaporation rate:	N.A.
Vapour pressure:	N.A.
Relative density:	0.9800 Kg/l a 20°C
Solubility in water:	N.A.
Solubility in oil:	N.A.
Partition coefficient (n-octanol/water):	N.A.
Auto-ignition temperature:	> 250° C
Decomposition temperature:	N.A.

Explosive properties:	N.A.
Oxidizing properties:	N.A.

9.2. Other information

Miscibility:	N.A.
Fat Solubility:	N.A.
Conductivity:	N.A.
Substance Groups relevant properties	N.A.

SECTION 10: Stability and reactivity

- 10.1. Reactivity
 - Stable under normal conditions
- 10.2. Chemical stability
 - Stable under normal conditions
- 10.3. Possibility of hazardous reactions
 - No dangerous reaction is stored and used appropriately.
- 10.4. Conditions to avoid
 - Avoid accumulating electrostatic charge.
 - Vapours can form explosive mixtures with air.
- 10.5. Incompatible materials
 - Avoid contact with combustible materials. The product could catch fire.
- 10.6. Hazardous decomposition products
 - vapours potentially dangerous to health may be released.

SECTION 11: Toxicological information

- 11.1. Information on toxicological effects
 - Toxicological information of the product:
 - N.A.
 - Toxicological information of the main substances found in the product:
 - n-butyl acetate - CAS: 123-86-4
 - a) acute toxicity:

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Test: LC50 - Route: Inhalation - Species: Rat > 21 mg/l - Duration: 4h

Test: LD50 - Route: Oral - Species: Rat = 10736 mg/kg - Notes: Method OECD linee guide 402

Test: LD50 - Route: Skin - Species: Rabbit > 14000 mg/kg

2-methoxy-1-methylethyl acetate - CAS: 108-65-6

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 8532 mg/kg

Test: LC50 - Route: Skin - Species: Rat > 5000 mg/kg

Test: LC50 - Route: Inhalation Mist - Species: Rat > 23.8 mg/l - Duration: 6h

b) skin corrosion/irritation:

Test: Skin Irritant - Route: Skin - Species: Rabbit Negative

c) serious eye damage/irritation:

Test: Eye Irritant - Species: Rabbit Negative

d) respiratory or skin sensitisation:

Test: Skin Sensitization - Route: Skin - Species: Cavia porcellus Negative

Hesamethylene diisocyanate, oligomerisation product - CAS: 28182-81-2

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat > 400 mg/m³ - Duration: 4h - Source: OCSE -Guide line 403

Test: LD50 - Route: Skin - Species: Rabbit > 2000 mg/kg

toluene - CAS: 108-88-3

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat 5000 mg/kg - Duration: 24h

Test: LD50 - Route: Skin - Species: Rabbit 12267 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat 25.7 mg/l - Duration: 4h

butanone - CAS: 78-93-3

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 2737 mg/kg

Test: LD50 - Route: Skin - Species: Rabbit = 6480 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat = 23.5 mg/l - Duration: 8h

b) skin corrosion/irritation:

Test: Skin Corrosive - Species: Rabbit Negative - Notes: moderatamente irritante

xylene [isomer mixture] - CAS: 1330-20-7

a) acute toxicity:

Test: LD50 - Route: Inhalation - Species: Rat = 27 mg/l - Duration: 4h

Test: LD50 - Route: Oral - Species: Rat = 3523 mg/kg

Test: LD50 - Route: Skin - Species: Rabbit = 12126 mg/kg

ethylbenzene - CAS: 100-41-4

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 3500 mg/kg

Test: LD50 - Route: Oral - Species: Rat = 4710 mg/kg body weight

Test: LD50 - Route: Skin - Species: Rabbit = 15400 mg/kg

Test: LCLo - Route: Inhalation - Species: Rat = 4000 Ppm - Duration: 4h

d) respiratory or skin sensitisation:

Test: Skin Sensitization - Route: Skin - Species: Cavia porcellus Negative

hexamethylene-di-isocyanate - CAS: 822-06-0

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 746 mg/kg - Notes: Method: OECD TG 401

Test: LD50 - Route: Skin - Species: Rabbit > 7000 mg/kg - Notes: Method: OECD TG 402

Test: LC50 - Route: Inhalation - Species: Rat = 0.124 mg/l - Duration: 4h - Notes: Method:

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OECD TG 403 - Conc. del vapore saturo di 1,6-HDI a 25°C 0,095 mg/l
Test: NOAEL - Route: Inhalation - Species: Rat 0.035 mg/m³ - Duration: 6h - Notes:
Method OECD linee guide 453
Test: LOAEL - Route: Inhalation - Species: Rat 0.175 mg/m³ - Duration: 6h - Notes:
Method OECD linee guide 453

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.:

- a) acute toxicity;
- b) skin corrosion/irritation;
- c) serious eye damage/irritation;
- d) respiratory or skin sensitisation;
- e) germ cell mutagenicity;
- f) carcinogenicity;
- g) reproductive toxicity;
- h) STOT-single exposure;
- i) STOT-repeated exposure;
- j) aspiration hazard.

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

n-butyl acetate - CAS: 123-86-4

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 64 mg/l - Duration h: 48

Endpoint: EC50 - Species: Daphnia = 73 mg/l - Duration h: 24

Endpoint: EC50 - Species: Algae = 674 mg/l - Duration h: 72

2-methoxy-1-methylethyl acetate - CAS: 108-65-6

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 100 ml/l - Duration h: 96 - Notes: Method OECD linee guide 203

Endpoint: EC50 - Species: Daphnia > 500 mg/l - Duration h: 48 - Notes: Method Direttiva 67/548CEE allegato V,C.2

Endpoint: ErC50 - Species: Algae > 1000 mg/l - Duration h: 72 - Notes: Method OECD TG 209

Hesamethylene diisocyanate, oligomerisation product - CAS: 28182-81-2

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 100 mg/l - Duration h: 96

Endpoint: LC50 - Species: Daphnia > 100 mg/l - Duration h: 48

Endpoint: ErC50 - Species: Algae > 100 mg/l - Duration h: 72

toluene - CAS: 108-88-3

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 5.5 ml/l - Duration h: 96

Endpoint: EC50 - Species: Algae > 134 ml/l - Duration h: 72

b) Aquatic chronic toxicity:

Endpoint: EC50 - Species: Daphnia = 3.78 mg/l - Duration h: 48

butanone - CAS: 78-93-3

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 3220 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia > 520 mg/l - Duration h: 48

xylene [isomer mixture] - CAS: 1330-20-7

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a) Aquatic acute toxicity:
 Endpoint: EC50 - Species: Daphnia = 1 mg/l - Duration h: 48
 Endpoint: LC50 - Species: Fish = 3.2 mg/l - Duration h: 96
 Endpoint: LC50 - Species: Algae = 2.6 mg/l - Duration h: 73

ethylbenzene - CAS: 100-41-4

a) Aquatic acute toxicity:
 Endpoint: LC50 - Species: Fish = 42.3 mg/l - Duration h: 96

- 12.2. Persistence and degradability
 None known
 N.A.
- 12.3. Bioaccumulative potential
 N.A.
- 12.4. Mobility in soil
 N.A.
- 12.5. Results of PBT and vPvB assessment
 vPvB Substances: None - PBT Substances: None
- 12.6. Other adverse effects
 None known

SECTION 13: Disposal considerations

- 13.1. Waste treatment methods
 Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force. Where applicable, refer to the following regulatory provisions : 91/156/EEC, 91/689/EEC, 94/62/EC and subsequent amendments.

SECTION 14: Transport information

- 14.1. UN number
 ADR-UN Number: 1263
 IATA-Un number: 1263
 IMDG-Un number: 1263
- 14.2. UN proper shipping name
 ADR-Shipping Name: PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning and reducing compound)
 IATA-Shipping Name: PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning and reducing compound)
 IMDG-Shipping Name: PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning and reducing compound)
- 14.3. Transport hazard class(es)
 ADR-Class: 3
 ADR-Label: 3
 ADR - Hazard identification number: 33
 IATA-Class: 3
 IATA-Label: 3
 IMDG-Class: 3
- 14.4. Packing group
 ADR-Packing Group: II

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IATA-Packing group:	II
IMDG-Packing group:	II
14.5. Environmental hazards	
14.6. Special precautions for user	
ADR-Transport category (Tunnel restriction code):	2 (D/E)
IATA-Passenger Aircraft:	353
IATA-Cargo Aircraft:	364
IMDG-Technical name:	PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning and reducing compound)
IMDG-EMS:	F-E , <u>S-E</u>
14.7. Transport in bulk according to Annex II of Marpol and the IBC Code	No

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) 2015/830

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Regulation (EU) n. 2016/918 (ATP 8 CLP)

Regulation (EU) n. 2016/1179 (ATP 9 CLP)

Regulation (EU) n. 2017/776 (ATP 10 CLP)

Regulation (EU) n. 2018/669 (ATP 11 CLP)

Regulation (EU) n. 2018/1480 (ATP 13 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

None

Where applicable, refer to the following regulatory provisions :

Directive 82/501/EEC ('Activities linked to risks of serious accidents') and subsequent amendments.

Regulation (EC) nr 648/2004 (detergents).

Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work.

1999/13/EC (VOC directive)

Directive 1999/13/CE

Total Volatile Organic Compounds (typical value):	66 %
Total Volatile Organic Carbon (typical value):	42.51 %
Total solids content:	33.4 - 34.6 %

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Total Volatile Organic Compounds (typical value): 646.8 gr/l

15.2. Chemical safety assessment
No

SECTION 16: Other information

Text of phrases referred to under heading 3:

- H226 Flammable liquid and vapour.
- H336 May cause drowsiness or dizziness.
- EUH066 Repeated exposure may cause skin dryness or cracking.
- H319 Causes serious eye irritation.
- H317 May cause an allergic skin reaction.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H225 Highly flammable liquid and vapour.
- H361d Suspected of damaging the unborn child.
- H304 May be fatal if swallowed and enters airways.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H315 Causes skin irritation.
- H312 Harmful in contact with skin.
- H302 Harmful if swallowed.
- H330 Fatal if inhaled.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

- ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities
- SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eighth Edition - Van Nostrand Reinold
- ACGIH - Threshold Limit Values - 2004 edition

RESTRICTED TO PROFESSIONAL USERS

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality. It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
ATE:	Acute Toxicity Estimate
ATEmix:	Acute toxicity Estimate (Mixtures)
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.



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IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
LTE:	Long-term exposure.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STE:	Short-term exposure.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWATLV:	Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
WGK:	German Water Hazard Class.
N.A.:	N.A.
N.D.:	

End of Safety Data Sheet

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Label model

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Hazard pictograms:

Danger

Hazard statements:

- H225 Highly flammable liquid and vapour.
- H319 Causes serious eye irritation.
- H317 May cause an allergic skin reaction.
- H361 Suspected of damaging fertility or the unborn child.
- H336 May cause drowsiness or dizziness.

Precautionary statements:

- P202 Do not handle until all safety precautions have been read and understood.
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P240 Ground and bond container and receiving equipment.
- P243 Take action to prevent static discharges.
- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P370+P378 In case of fire: Use CO₂, Foam, Chemical powders to extinguish.
- P403+P235 Store in a well-ventilated place. Keep cool.

Special Provisions:

- EUH066 Repeated exposure may cause skin dryness or cracking.
- EUH204 Contains isocyanates. May produce an allergic reaction.

Contains

- n-butyl acetate
- Alifatic-aromatic polyisocyanate
- toluene
- butanone
- Hesamethylene diisocyanate, oligomerisation product: May produce an allergic reaction.
- hexamethylene-di-isocyanate: May produce an allergic reaction.

Quantity:

Company:
