Safety Data Sheet
385056 - Ct23nor Polyurethane Hardner

Safety Data Sheet dated 2/10/2017, version 30

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

1.1. Product identifier

Mixture identification:

Trade name: Ct23nor Polyurethane Hardner

Trade code: 385056

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

National Poisons Information Service - Medical Center Chaim Shiba - Tel Ha' shomer - Phone +972 - 3 - 5303030

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, Skin Irrit. 2, Causes skin irritation.
- Warning, Eye Irrit. 2, Causes serious eye irritation.
- Danger, Resp. Sens. 1, May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Warning, Skin Sens. 1, May cause an allergic skin reaction.
- Warning, Carc. 2, Suspected of causing cancer.
- Warning, Repr. 2, Suspected of damaging fertility or the unborn child.
- Warning, STOT SE 3, May cause drowsiness or dizziness.
- Warning, STOT RE 2, May cause damage to organs through prolonged or repeated exposure.
- Danger, Asp. Tox. 1, May be fatal if swallowed and enters airways.

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.
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.
H351 Suspected of causing cancer.
H361 Suspected of damaging fertility or the unborn child.
H336 May cause drowsiness or dizziness.
H373 May cause damage to organs through prolonged or repeated exposure.
H304 May be fatal if swallowed and enters airways.

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/bond container and receiving equipment.
P243 Take precautionary measures against static discharge.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/...
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P331 Do NOT induce vomiting.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor/...
P370+P378 In case of fire: Use CO2, Foam, Chemical powders to extinguish.

Special Provisions:

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

Contains

toluene
n-butyl acetate
1-isocyanato-4-[(4-isocyanatophenyl)methyl]benzene homopolymer
Aromatic polyisocyanate
Toluendiisociancyanate (Polymer): May produce an allergic reaction.
m-tolylidene diisocyanate (Mixture of isomers): 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% 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 H361
- 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

>= 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% Aromatic polyisocyanate

CAS: 9017-01-0

- 3.3/2 Eye Irrit. 2 H319
- 3.4.2/1 Skin Sens. 1 H317

>= 9.9% - < 12.5% ethyl acetate

REACH No.: 01-2119475103-46-xxxx, Index number: 607-022-00-5, CAS: 141-78-6, EC: 205-500-4

- 2.6/2 Flam. Liq. 2 H225
- 3.3/2 Eye Irrit. 2 H319
- 3.8/3 STOT SE 3 H336

EUH066

>= 2.5% - < 3% Toluendiisociancyanate (Polymer)

CAS: 53317-61-6

- 3.3/2 Eye Irrit. 2 H319
- 3.4.2/1 Skin Sens. 1 H317

>= 2.5% - < 3% 1-isocyanato-4-[(4-isocyanatophenyl)methyl]benzene homopolymer

REACH No.: 01-2119457013-49-xxxx, CAS: 25686-28-6, EC: 500-040-3

- 3.6/2 Carc. 2 H351
- 3.9/2 STOT RE 2 H373
- 3.3/2 Eye Irrit. 2 H319

3.8/3 STOT SE 3 H335
3.2/2 Skin Irrit. 2 H315
3.4.1/1-1A-1B Resp. Sens. 1,1A,1B H334
3.4.2/1-1A-1B Skin Sens. 1,1A,1B H317
3.1/4/Inhal Acute Tox. 4 H332

>= 0.2% - < 0.25% m-tolylidene diisocyanate (Mixture of isomers)
REACH No.: 01-2119454791-34-xxxx, Index number: 615-006-00-4, CAS: 26471-62-5, EC: 247-722-4
3.6/2 Carc. 2 H351
3.3/2 Eye Irrit. 2 H319
3.8/3 STOT SE 3 H335
3.2/2 Skin Irrit. 2 H315
3.4.2/1 Skin Sens. 1 H317
3.4.1/1 Resp. Sens. 1 H334
4.1/C3 Aquatic Chronic 3 H412
3.1/2/Inhal Acute Tox. 2 H330

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 opthalmologist 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.
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

Wear personal protection equipment.
Remove all sources of ignition.
Wear breathing apparatus if exposed to vapours/dusts/aerosols.
Provide adequate ventilation.
Remove persons to safety.
Use appropriate respiratory protection.
See protective measures under point 7 and 8.

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.
Contamined 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

Store at below 30 ℃. Keep away from unguarded flam e 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:
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

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

n-butyl acetate - CAS: 123-86-4
TWA (Italia) - TWA: 150 ppm - STEL: 200 ppm
ACGIH - TWA: 150 ppm - STEL: 200 ppm - Notes: Eye and URT irr

ethyl acetate - CAS: 141-78-6
(OEL (IT)) - TWA: 400 ppm
ACGIH - TWA(8h): 400 ppm - Notes: URT and eye irr

m-tolylidene diisocyanate (Mixture of isomers) - CAS: 26471-62-5
VLE - TWA(8h): 0.005 ppm - STEL: 0.02 ppm
ACGIH - TWA: 0.04 mg/m3, 0.01 ppm - STEL: 0.14 mg/m3, 0.02 ppm - Notes: A4 sen

DNEL Exposure Limit Values

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

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
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

ethyl acetate - CAS: 141-78-6
Worker Industry: 1468 mg/m3 - Consumer: 734 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term, systemic effects
Worker Industry: 1468 ppm - Exposure: Human Inhalation - Frequency: Short Term (acute)
Worker Industry: 63 mg/Kg-bw/day - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Worker Industry: 734 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, local effects
Worker Industry: 734 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Consumer: 4.5 mg/Kg-bw/day - Exposure: Human Oral - Frequency: Long Term, systemic effects
Consumer: 734 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term (acute)
Consumer: 734 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Consumer: 37 mg/Kg-bw/day - Exposure: Human Dermal - Frequency: Long Term, local effects
Consumer: 367 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term, local effects
Consumer: 367 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

1-isocyanato-4-[(4-isocyanatophenyl)methyl]benzene homopolymer - CAS: 25686-28-6
Worker Industry: 50 mg/Kg-bw/day - Exposure: Human Dermal - Frequency: Short Term, systemic effects
Worker Industry: 0.1 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term, systemic effects
Worker Industry: 28.7 mg/cm2 - Exposure: Human Dermal - Frequency: Short Term, local effects
Worker Industry: 0.1 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term, local effects
Worker Industry: 0.05 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Worker Industry: 0.05 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, local effects

m-tolylidene diisocyanate (Mixture of isomers) - CAS: 26471-62-5
Worker Industry: 0.14 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term, systemic effects
Worker Industry: 0.14 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term, local effects
Worker Industry: 0.035 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term, systemic effects

Worker Industry: 0.0035 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, local effects

PNEC Exposure Limit Values

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

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

ethyl acetate - CAS: 141-78-6

Target: Fresh Water - Value: 0.26 mg/l
Target: Marine water - Value: 0.026 mg/l
Target: Freshwater sediments - Value: 1.25 mg/kg
Target: Marine water sediments - Value: 0.125 mg/kg
Target: Soil (agricultural) - Value: 0.24 mg/kg
Target: orally (secondary poisoning) - Value: 200 mg/kg - Notes:: Dietetico
Target: STP - Value: 650 mg/l

1-isocyanato-4-[(4-isocyanatophenyl)methyl]benzene homopolymer - CAS: 25686-28-6

Target: Fresh Water - Value: 1 mg/l
Target: Marine water - Value: 0.1 mg/l
Target: STP - Value: 1 mg/l
Target: Soil (agricultural) - Value: 1 mg/kg

m-tolylidene diisocyanate (Mixture of isomers) - CAS: 26471-62-5

Target: Fresh Water - Value: 0.013 mg/l
Target: Marine water - Value: 0.00125 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

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℃ (< 73.4 ℉)
Evaporation rate:	N.A.
Vapour pressure:	N.A.
Relative density:	0.9600 Kg/l a 20℃
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.
Viscosity (typical value):	13.00 " Din cup # 4
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.

Safety Data Sheet
385056 - Ct23nor Polyurethane Hardner

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:

toluene - CAS: 108-88-3

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat 636 mg/kg

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

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

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

a) acute toxicity:

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

Aromatic polyisocyanate - CAS: 9017-01-0

a) acute toxicity:

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

b) skin corrosion/irritation:

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

ethyl acetate - CAS: 141-78-6

a) acute toxicity:

Test: LD50 - Route: Skin - Species: Rabbit > 20000 mg/kg

Test: LD50 - Route: Oral - Species: Rat = 5620 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat > 29.3 mg/l - Duration: 4h

Test: LD50 - Route: Oral - Species: Rabbit = 4934 mg/kg body weight

b) skin corrosion/irritation:

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

e) germ cell mutagenicity:

Test: Genotoxicity Negative

j) aspiration hazard:

Test: Respiratory Tract Corrosive - Route: Inhalation Positive

Toluendiisociancyanate (Polymer) - CAS: 53317-61-6

a) acute toxicity:

Test: LC50 - Route: Inhalation - Species: Rat > 2.462 mg/l - Duration: 4h - Notes: tests conducted on a comparable product

Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg - Notes: tests conducted on a comparable product

b) skin corrosion/irritation:

Test: Skin Irritant - Route: Skin - Species: Rabbit Negative - Notes: tests conducted on a comparable product

c) serious eye damage/irritation:

Test: Eye Irritant Positive

d) respiratory or skin sensitisation:

Test: Skin Sensitization - Species: Cavia porcellus Positive - Notes: tests conducted on a comparable product

e) germ cell mutagenicity:

Test: Genotoxicity - Species: Salmonella Typhimurium Negative - Source: Method OECD TG 471 - Notes: tests conducted on a comparable product

j) aspiration hazard:

Test: Respiratory Tract Irritant - Route: Inhalation - Species: Rabbit Positive
1-isocyanato-4-[(4-isocyanatophenyl)methyl]benzene homopolymer - CAS: 25686-28-6
a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg body weight
Test: LD50 - Route: Skin - Species: Rabbit > 9400 mg/kg body weight - Duration: 24h - Notes: Read -across with polimeric MDI CAS 9016-87-9
b) skin corrosion/irritation:
Test: Skin Irritant - Species: Rabbit Positive - Notes: Cat. 2
Test: Eye Irritant - Species: Rabbit Positive - Notes: Cat. 2B
d) respiratory or skin sensitisation:
Test: LC50 - Route: Inhalation - Species: Rat = 2.24 mg/l - Duration: 1h - Notes: Read-across with diisocianate 4-4-metildifenile - CAS 101-68-8
Test: Skin Sensitization - Species: Cavia porcellus Positive - Notes: Cat.1
Test: Inhalation Sesitization - Species: Cavia porcellus Positive - Notes: Cat.1
e) germ cell mutagenicity:
Test: Mutagenesis Negative
f) carcinogenicity:
Test: Carcinogeneticy Positive - Notes: Cat. 2
m-tolylidene diisocyanate (Mixture of isomers) - CAS: 26471-62-5
a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat male = 5110 mg/kg
Test: LD50 - Route: Oral - Species: Rat Female = 4130 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit > 9400 mg/kg
Test: LC50 - Route: Inhalation Mist - Species: Rat = 101 mg/m3 - Duration: 4h - Notes: Satur vapor concentration at 25℃ : 255 mg/m3
Test: LC50 - Route: Inhalation Vapour - Species: Rat 0.47 mg/l - Duration: 1h
b) skin corrosion/irritation:
Test: Skin Irritant - Route: Skin - Species: Rabbit Positive
j) aspiration hazard:
Test: Respiratory Tract Corrosive - Route: Inhalation - Species: Rabbit Positive

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.
toluene - CAS: 108-88-3
a) Aquatic acute toxicity:
Endpoint: EC50 - Species: Algae = 12500 Ppm - Duration h: 72
Endpoint: EC50 - Species: Algae > 433 Ppm - Duration h: 96

b) Aquatic chronic toxicity:
Endpoint: NOEC - Species: Daphnia = 1000 Ppm - Duration h: 504
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
Aromatic polyisocyanate - CAS: 9017-01-0
a) Aquatic acute toxicity:
Endpoint: EC50 - Species: Active mud > 10000 mg/l
ethyl acetate - CAS: 141-78-6
a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish = 454.7 mg/l - Duration h: 96
Endpoint: EC50 - Species: Daphnia = 154 mg/l - Duration h: 48
Endpoint: EC50 - Species: Algae = 3300 mg/l - Duration h: 48
b) Aquatic chronic toxicity:
Endpoint: NOEC - Species: Algae > 100 mg/l - Duration h: 72
1-isocyanato-4-[(4-isocyanatophenyl)methyl]benzene homopolymer - CAS: 25686-28-6
a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish > 1000 mg/l - Duration h: 96
Endpoint: EC50 - Species: Daphnia > 1000 mg/l - Duration h: 24
Endpoint: NOEC - Species: Algae = 1640 mg/l - Duration h: 72
m-tolylidene diisocyanate (Mixture of isomers) - CAS: 26471-62-5
a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish = 133 mg/l - Duration h: 96
Endpoint: ErC50 - Species: Algae = 4300 mg/l - Duration h: 96
Endpoint: EC50 - Species: Daphnia = 12.5 mg/l - Duration h: 48
Endpoint: NOEC - Species: Daphnia = 1.1 mg/l - Duration h: 504
Endpoint: ErC50 - Species: Algae 4300 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
IATA-Packing group: II
IMDG-Packing group: II

14.5. Environmental hazards

14.6. Special precautions for user

ADR-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 , S-E

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)
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):	74 %	
Total Volatile Organic Carbon (typical value):		53.84 %
Total solids content:	25.5 - 26.5 %	

15.2. Chemical safety assessment
No

SECTION 16: Other information

Text of phrases referred to under heading 3:
H225 Highly flammable liquid and vapour.
H361 Suspected of damaging fertility or 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.
H336 May cause drowsiness or dizziness.
H226 Flammable liquid and vapour.
EUH066 Repeated exposure may cause skin dryness or cracking.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H335 May cause respiratory irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H332 Harmful if inhaled.
H412 Harmful to aquatic life with long lasting effects.
H330 Fatal if inhaled.
Paragraphs modified from the previous revision:

SECTION 3: Composition/information on ingredients
SECTION 8: Exposure controls/personal protection
SECTION 11: Toxicological information
SECTION 12: Ecological information

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.
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.
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

Safety Data Sheet
385056 - Ct23nor Polyurethane Hardner

Label model

385056
Ct23nor Polyurethane Hardner

Hazard pictograms:

Danger

Hazard statements:
- H225 Highly flammable liquid and vapour.
- 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.
- H351 Suspected of causing cancer.
- H361 Suspected of damaging fertility or the unborn child.
- H336 May cause drowsiness or dizziness.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H304 May be fatal if swallowed and enters airways.

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/bond container and receiving equipment.
- P243 Take precautionary measures against static discharge.
- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/...
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P331 Do NOT induce vomiting.
- P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor/...
- P370+P378 In case of fire: Use CO2, Foam, Chemical powders to extinguish.

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

Contains
- toluene
- n-butyl acetate
- 1-isocyanato-4-[(4-isocyanatophenyl)methyl]benzene homopolymer
- Aromatic polyisocyanate
- Toluendiisociancyanate (Polymer): May produce an allergic reaction.
- m-tolylidene diisocyanate (Mixture of isomers): May produce an allergic reaction.

Quantity: Company: