



Safety Data Sheet

Hardner for PU - 50%

Safety Data Sheet dated 11/3/2017, version 3

1. IDENTIFICATION

Product identifier

Mixture identification:

Trade name:

Hardner for PU - 50%

Other means of identification:

Trade code:

6CTH3

Recommended use of the chemical and restrictions on use

Recommended use: Surface coating

Restrictions on use:

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Company:

Sirca S.p.A.

Address:

Viale Roma, 85

35010 S. Dono di Massanzago (PD) - ITALY

Tel. +39 0499322311

Distributed by:

GEMINI INDUSTRIES, INC.

2300 Holloway Drive

El Reno, OK 73036

USA

Tel. 1-800-262-5710

Fax 1-405-262-9310

www.gemini-coatings.com

Competent person responsible for the safety data sheet:

safety@sirca.it

Emergency phone number

For Hazardous Materials [or Dangerous Goods] Incident

Spill, Leak, Fire, Exposure, or Accident

Call CHEMTREC Day or Night

1-800-424-9300 / +1 703-527-3887.

2. HAZARD(S) IDENTIFICATION

Classification of the chemical



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



Warning, Eye Irrit. 2A, 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, 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.

Label elements

Hazard pictograms:



Danger

Hazard statements:

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

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.

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Precautionary statements:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash your face, hands and every exposed part thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P284 [In case of inadequate ventilation] wear respiratory protection.
P302+P352 IF ON SKIN: Wash with plenty of water and soap.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P312 Call a POISON CENTER/doctor/... if you feel unwell.
P314 Get medical advice/attention if you feel unwell.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor/...
P363 Wash contaminated clothing before reuse.
P370+P378 In case of fire: Use a CO2, Foam, Chemical powders for extinction.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P501 Dispose of contents/container in accordance with applicable regulations.

Special Provisions:

None

Hazards not otherwise classified identified during the classification process:

None

Ingredient(s) with unknown acute toxicity:

None.

Additional classification information

NFPA rating:



HMIS rating:

HEALTH	*	2
FLAMMABILITY		3
PHYSICAL HAZARD		1
PERSONAL PROTECTION		

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

N.A.

Mixtures























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Hazardous components within the meaning of 29 CFR 1910.1200 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
 B.6/3 Flam. Liq. 3 H226
 A.8/3 STOT SE 3 H336
- >= 25% - < 48% ethyl acetate
 REACH No.: 01-2119475103-46-xxxx, Index number: 607-022-00-5, CAS: 141-78-6, EC: 205-500-4
 B.6/2 Flam. Liq. 2 H225
 A.3/2A Eye Irrit. 2A H319
 A.8/3 STOT SE 3 H336
- >= 20% - < 25% Alifatic-aromatic polyisocyanate
 CAS: 26426-91-5
 A.3/2A Eye Irrit. 2A H319
 A.4.2/1 Skin Sens. 1 H317
- >= 7% - < 9.9% toluene
 REACH No.: 01-2119471310-51-xxxx, Index number: 601-021-00-3, CAS: 108-88-3, EC: 203-625-9
 B.6/2 Flam. Liq. 2 H225
 A.7/2 Repr. 2 H361
 A.10/1 Asp. Tox. 1 H304
 A.9/2 STOT RE 2 H373
 A.2/2 Skin Irrit. 2 H315
 A.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
 B.6/2 Flam. Liq. 2 H225
 A.3/2A Eye Irrit. 2A H319
 A.8/3 STOT SE 3 H336
- >= 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
 A.3/2A Eye Irrit. 2A H319
 A.8/3 STOT SE 3 H335
 A.2/2 Skin Irrit. 2 H315
 A.4.1/1 Resp. Sens. 1 H334
 A.4.2/1 Skin Sens. 1 H317
 A.1/3/Inhal Acute Tox. 3 H331

4. FIRST-AID MEASURES

Description of necessary measures

In case of skin contact:

Immediately take off all contaminated clothing.

Remove contaminated clothing immediately and dispose off safely.

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



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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:
Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:
Remove casualty to fresh air and keep warm and at rest.

Most important symptoms/effects, acute and delayed
None

Indication of 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).

Treatment:
None

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:
In case of fire: Use a CO₂, Foam, Chemical powders for extinction.

Unsuitable extinguishing media:
None in particular.

Specific hazards arising from the chemical
Do not inhale explosion and combustion gases.
Burning produces heavy smoke.

Hazardous combustion products:
None

Explosive properties: N.A.

Oxidizing properties: N.A.

Special protective equipment and precautions for fire-fighters
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.

6. ACCIDENTAL RELEASE MEASURES

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.

Methods and materials for containment and cleaning up
Wash with plenty of water.

7. HANDLING AND STORAGE

Precautions for safe handling
Avoid contact with skin and eyes, inhalation of vapours and mists.
Exercise the greatest care when handling or opening the container.
Do not use on extensive surface areas in premises where there are occupants.
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.
See also section 8 for recommended protective equipment.

Conditions for safe storage, including any incompatibilities
Always keep in a well ventilated place.
Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.
Keep away from flame and sparks. Avoid accumulating electrostatic charge.
Place recipients on the ground whilst decanting, and wear anti-static clothing and shoes.

Keep away from food, drink and feed.

Incompatible materials:
None in particular.

Instructions as regards storage premises:
Cool and adequately ventilated.
Safety electric system.

Storage temperature:
Store at ambient temperature.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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Control parameters

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

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

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
 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

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

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

ethyl acetate - CAS: 141-78-6
 Target: Fresh Water - Value: 0.26 mg/l
 Target: Marine water - Value: 0.026 mg/l

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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
 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
 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
 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
 Appropriate engineering controls:
 None
 Individual protection measures
 Eye protection:
 Use close fitting safety goggles, don't use eye lens.
 Protection for skin:
 Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.
 Protection for hands:
 Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.
 Respiratory protection:
 Use adequate protective respiratory equipment.
 Thermal Hazards:
 None

9. 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:	< 21°C - < 69.8 °F
Evaporation rate:	N.A.
Vapour pressure:	N.A.
Relative density:	0.9350 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.
Miscibility:	N.A.
Fat Solubility:	N.A.
Conductivity:	N.A.
Substance Groups relevant properties	N.A.

10. STABILITY AND REACTIVITY

Reactivity
 It may generate dangerous reactions (See subsections below)
 Chemical stability

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It may generate dangerous reactions (See subsections below)
 Possibility of hazardous reactions
 No dangerous reaction is stored and used appropriately.
 Conditions to avoid
 Avoid accumulating electrostatic charge.
 Vapours can form explosive mixtures with air.
 Incompatible materials
 Avoid contact with combustible materials. The product could catch fire.
 Hazardous decomposition products
 None.

11. TOXICOLOGICAL INFORMATION

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:

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

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

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

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

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: 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

Substance(s) listed on the NTP report on Carcinogens:

None.

Substance(s) listed on the IARC Monographs:

toluene - Group 3.

Substance(s) listed as OSHA Carcinogen(s):

hexamethylene-di-isocyanate.

Substance(s) listed as NIOSH Carcinogen(s):

None.

12. ECOLOGICAL INFORMATION

Ecotoxicity

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



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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
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
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
Persistence and degradability
N.A.
Bioaccumulative potential
N.A.
Mobility in soil
N.A.
Other adverse effects
None

13. DISPOSAL CONSIDERATIONS

Waste treatment and disposal 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.

14. TRANSPORT INFORMATION

ADR-UN Number:	1263
DOT-UN Number:	1263
IATA-UN Number:	1263
IMDG-UN Number:	1263
UN proper shipping name	
ADR-Shipping Name:	Paint Related material
DOT-Shipping Name:	Paint Related material
IATA-Shipping Name:	Paint Related material
IMDG-Shipping Name:	Paint Related material
Transport hazard class(es)	
ADR-Class:	3
DOT-Class:	3
IATA-Class:	3
IMDG-Class:	3
Packing group	
ADR-Packing Group: II	
DOT-Packing Group: II	
IATA-Packing group: II	
IMDG-Packing group: II	
Environmental hazards	
ADR-Environmental Pollutant: No	
IMDG-Marine pollutant: No	
Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)	
No	
Special precautions	
ADR-Tunnel Restriction Code: D/E	
DOT-Special provisions:	149, B52, IB2, T4, TP1, TP8, TP28
IATA-Passenger Aircraft:	353
IATA-Cargo Aircraft:	364
IATA-S.P.:	A72
IATA-ERG:	8L
IMDG-EmS:	F-E, <u>S-E</u>
IMDG-Storage category:	B
IMDG-Storage notes:	None

15. REGULATORY INFORMATION

USA - Federal regulations

TSCA - Toxic Substances Control Act

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- TSCA inventory: all the components are listed on the TSCA inventory.
TSCA listed substances:
n-butyl acetate is listed in TSCA Section 4, Section 12b
toluene is listed in TSCA Section 8a - CAIR.
- SARA - Superfund Amendments and Reauthorization Act
Section 302 – Extremely Hazardous Substances: no substances listed.
Section 304 – Hazardous substances: no substances listed.
Section 313 – Toxic chemical list: toluene, hexamethylene-di-isocyanate.
- CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act
Substance(s) listed under CERCLA: n-butyl acetate - Reportable quantity: 5000 pounds
ethyl acetate - Reportable quantity: 5000 pounds
toluene - Reportable quantity: 1000 pounds
butanone - Reportable quantity: 5000 pounds
hexamethylene-di-isocyanate - Reportable quantity: 100 pounds.
Reportable quantity for mixture: 11135.85746 pounds.
- CAA - Clean Air Act
CAA listed substances:
n-butyl acetate is listed in CAA Section 111
ethyl acetate is listed in CAA Section 111
toluene is listed in CAA Section 111, Section 112(b) - HAP, Section 112(b) - HON
butanone is listed in CAA Section 111, Section 112(b) - HAP, Section 112(b) - HON
hexamethylene-di-isocyanate is listed in CAA Section 112(b) - HAP.
- CWA - Clean Water Act
CWA listed substances:
n-butyl acetate is listed in CWA Section 311, Section 304
ethyl acetate is listed in CWA Section 304
toluene is listed in CWA Section 311, Section 304, Section 307.
- USA - State specific regulations
California Proposition 65
Substance(s) listed under California Proposition 65:
toluene - Listed as reproductive toxicant.
- Massachusetts Right to know
Substance(s) listed under Massachusetts Right to know:
n-butyl acetate
ethyl acetate
toluene
butanone
hexamethylene-di-isocyanate.
- New Jersey Right to know
Substance(s) listed under New Jersey Right to know:
n-butyl acetate
ethyl acetate
toluene
butanone
hexamethylene-di-isocyanate.
- Pennsylvania Right to know
Substance(s) listed under Pennsylvania Right to know:
n-butyl acetate
ethyl acetate
toluene
butanone.

16. OTHER INFORMATION

- Text of phrases referred to under heading 3:
H226 Flammable liquid and vapour.
H336 May cause drowsiness or dizziness.
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.
H304 May be fatal if swallowed and enters airways.
H373 May cause damage to organs through prolonged or repeated exposure.
H315 Causes skin irritation.
H335 May cause respiratory irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H331 Toxic if inhaled.

Safety Data Sheet dated 11/3/2017, version 3
Disclaimer:



Safety Data Sheet

Hardner for PU - 50%

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. The information relates only to the specific material and may not be valid for such material used in combination with any other material or in any process.

This Safety Data Sheet cancels and replaces any preceding release.

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.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
HMIS:	Hazardous Materials Identification System
IARC:	International Agency for Research on Cancer
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.
NFPA:	National Fire Protection Association
NIOSH:	National Institute for Occupational Safety and Health
NTP:	National Toxicology Program
OSHA:	Occupational Safety and Health Administration
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average