

HARDENER / HARDENER FAST

Creation date 19. June 2018
Revision date Version 1.1

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

- 1.1. Product identifier**
Substance / mixture HARDENER / HARDENER FAST
mixture
Number L 10004 / L 10005
- 1.2. Relevant identified uses of the substance or mixture and uses advised against**
mixture's intended use Hardener for "FILLER 4:1".
Disapproved uses of mixture For professional use only.
- 1.3. Details of the supplier of the safety data sheet**
Supplier
Name or trade name RETECH, s.r.o.
Address Vackova 1541/4, Praha 5 - Stodůlky, 155 00
Czech Republic
Identification number (ID) 25018205
Phone +420327596428
E-mail info@retech.cz
Web address www.retech.com
- Competent person responsible for the safety data sheet**
Name RETECH, s.r.o.
E-mail info@retech.cz
- 1.4. Emergency telephone number**
RETECH, Suchdol 212, 285 02 Suchdol u Kutné Hory, Czech Republic; Telephone number: +420 327 596 128 (7.30-16.00 hour)
Poisoning information centre, Na Bojišti 1, Praha, Czech Republic, Tel.: non-stop +420 224 919 293 or +420 224 915 402, Information on health risks only - acute poisoning of humans and animals.

SECTION 2: Hazards identification**2.1. Substance or mixture classification****Classification of the mixture in accordance with Regulation (EC) No 1272/2008**

The mixture is classified as dangerous.

Flam. Liq. 3, H226
Asp. Tox. 1, H304
Skin Irrit. 2, H315
Skin Sens. 1, H317
Eye Irrit. 2, H319
Acute Tox. 4, H332
STOT SE 3, H336
STOT RE 2, H373

Full text of all classifications and hazard statements is given in the section 16.

Most serious adverse physico-chemical effects

Flammable liquid and vapour.

Most serious adverse effects on human health and the environment

May cause drowsiness or dizziness. May cause an allergic skin reaction. Causes skin irritation. May cause damage to organs through prolonged or repeated exposure. May be fatal if swallowed and enters airways. Causes serious eye irritation. Harmful if inhaled.

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2.2. Label elements

Hazard pictogram



Signal word

Danger

Hazardous substances

hexamethylene diisocyanate, oligomers
xylene (mixture of isomers)

Hazard statements

- H226 Flammable liquid and vapour.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H336 May cause drowsiness or dizziness.
- H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P260 Do not breathe vapours/spray.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
- P331 Do NOT induce vomiting.
- P362 Take off contaminated clothing.
- P364 And wash it before reuse.
- P370+P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
- P403 Store in a well-ventilated place.
- P501 Dispose of contents/container to in accordance with national regulations.

Supplemental information

EUH 204 Contains isocyanates. May produce an allergic reaction.

2.3. Other hazards

Mixture does not contain any substance meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixture of substances and additives specified below.

Mixture contains these hazardous substances and substances with the highest permissible concentration in the working environment

| Identification numbers | Substance name | Content in % weight | Classification according to Regulation (EC) No 1272/2008 | Note. |
|------------------------------------------------------------------------------|---------------------------------------|---------------------|-------------------------------------------------------------|-------|
| CAS: 28182-81-2 EC: 500-060-2 Registration number: 01-2119485796-17 | hexamethylene diisocyanate, oligomers | ≥30- <50 | Skin Sens. 1, H317 Acute Tox. 4, H332 STOT SE 3, H335 | |

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| Identification numbers | Substance name | Content in % weight | Classification according to Regulation (EC) No 1272/2008 | Note. |
|------------------------------------------------------------------------------|------------------------------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| CAS: 123-86-4 EC: 204-658-1 Registration number: 01-2119485493-29 | n-butyl acetate | ≥30- <50 | Flam. Liq. 3, H226 STOT SE 3, H336 | |
| CAS: 1330-20-7 EC: 215-535-7 Registration number: 01-2119488216-32 | xylene (mixture of isomers) | ≥12,5- <20 | Flam. Liq. 3, H226 Asp. Tox. 1, H304 Acute Tox. 4, H312+H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 | 1 |
| CAS: 100-41-4 EC: 202-849-4 Registration number: 01-2119489370-35 | ethylbenzene | ≥2,5- <10 | Flam. Liq. 2, H225 Asp. Tox. 1, H304 Acute Tox. 4, H332 STOT RE 2, H373 | 1 |
| CAS: 64742-95-6 EC: 265-199-0 Registration number: 01-2119455851-35 | Solvent naphtha (petroleum), light arom. | ≥1-<10 | Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H335, H336 Aquatic Chronic 2, H411 | |

Notes

1 Substance for which exposure limits of Community for working environment exist.

Full text of all classifications and hazard statements is given in the section 16.

SECTION 4: First aid measures
4.1. Description of first aid measures

Take care of your own safety. If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet.

Inhalation

Terminate the exposure immediately; move the affected person to fresh air. Provide medical treatment if irritation, dyspnoea or other symptoms persist.

Skin contact

Remove contaminated clothes. Wash with plenty of soap and water. In the event of issues, find medical advice.

Eye contact

Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. In the event of issues, find medical advice.

Ingestion

Rinse out the mouth with water and provide 2-5 dL of water. DO NOT INDUCE VOMITING! Do not give milk or alcoholic beverages. In the event of unconsciousness, do not provide food by mouth. Provide medical treatment.

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

Dizziness, headaches, fatigue

Skin contact

Redness.

Eye contact

not available

Ingestion

Nausea, stomach pain, vomiting, diarrhoea.

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

In case of ingestion, the stomach should be emptied by gastric lavage.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Alcohol-resistant foam. Powder.

Unsuitable extinguishing media

not available

5.2. Special hazards arising from the substance or mixture

No hazardous combustion products are known.

5.3. Advice for firefighters

Use a self-contained breathing apparatus and full-body protective clothing. Store in a closed container. Store away from other materials. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water. Dispose of contaminated extinguishing water and remains after the fire in accordance with the official regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide sufficient ventilation. Flammable liquid and vapour. Remove all ignition sources. Use personal protective equipment for work.

6.2. Environmental precautions

Do not allow product to reach sewage system or any water course.

6.3. Methods and material for containment and cleaning up

Wipe up with absorbent material (e.g. cloth, fleece). After soaking store the respective material in the suitable package.

6.4. Reference to other sections

See the Section 7, 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Prevent formation of gases and vapours in flammable or explosive concentrations and concentrations exceeding the occupational exposure limits. The product should be used only in the areas where it is not in contact with open fire and other ignition sources. Use non-sparking tools. Do not inhale aerosols. Prevent contact with skin and eyes. No smoking. Wash hands and exposed parts of the body thoroughly after handling. Use only outdoors or in a well-ventilated area. Use personal protective equipment as per Section 8. Observe valid legal regulations on safety and health protection. Take precautionary measures against static discharge.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed containers in cold, dry and well ventilated areas designated for this purpose. Do not expose to sunlight. No smoking.

Storage class

3A - Flammable liquids (flash point below 55 °C)

The specific requirements or rules relating to the substance/mixture

The product is stable and no degradation occurs under normal use.

7.3. Specific end use(s)

not available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

The mixture contains substances for which occupational exposure limits are set.

European Union

| Substance name (component) | Type | Time of exposure | Value | Note | Source |
|-------------------------------------------------|------|------------------|-----------------------|------|-----------|
| xylene (mixture of isomers) (CAS: 1330-20-7) | OEL | 8 hours | 221 mg/m ³ | | EU limits |

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European Union

| Substance name (component) | Type | Time of exposure | Value | Note | Source |
|-------------------------------------------------|------|------------------|-----------------------|------|-----------|
| xylene (mixture of isomers) (CAS: 1330-20-7) | OEL | 8 hours | 50 ppm | | EU limits |
| | OEL | Short-term | 442 mg/m ³ | | |
| | OEL | Short-term | 100 ppm | | |
| ethylbenzene (CAS: 100-41-4) | OEL | 8 hours | 442 mg/m ³ | | EU limits |
| | OEL | 8 hours | 100 ppm | | |
| | OEL | Short-term | 884 mg/m ³ | | |
| | OEL | Short-term | 200 ppm | | |

United Kingdom of Great Britain and Northern Ireland

| Substance name (component) | Type | Time of exposure | Value | Note | Source |
|------------------------------------------------------------|------|------------------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| hexamethylene diisocyanate, oligomers (CAS: 28182-81-2) | TWA | 8 hours | 0,02 mg/m ³ | | EH40 |
| | | 15 minutes | 0,07 mg/m ³ | | |
| | | | | Capable of causing occupational asthma. | |
| n-butyl acetate (CAS: 123-86-4) | WEL | 8 hours | 724 mg/m ³ | | GBR |
| | WEL | 15 minutes | 966 mg/m ³ | | |
| | WEL | 8 hours | 150 ppm | | |
| | WEL | 15 minutes | 200 ppm | | |
| xylene (mixture of isomers) (CAS: 1330-20-7) | WEL | 8 hours | 220 mg/m ³ | Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity. | GBR |
| | WEL | 15 minutes | 441 mg/m ³ | Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity. | |
| | WEL | 8 hours | 50 ppm | Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity. | |

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United Kingdom of Great Britain and Northern Ireland

| Substance name (component) | Type | Time of exposure | Value | Note | Source |
|-------------------------------------------------|------|------------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| xylene (mixture of isomers) (CAS: 1330-20-7) | WEL | 15 minutes | 100 ppm | Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity. | GBR |
| ethylbenzene (CAS: 100-41-4) | WEL | 8 hours | 441 mg/m ³ | | Gestis |
| | WEL | Short-term | 552 mg/m ³ | | |
| | WEL | 8 hours | 100 ppm | | |
| | WEL | Short-term | 125 ppm | | |

DNEL

ethylbenzene

| Workers / consumers | Route of exposure | Value | Effect | Determining method |
|---------------------|-------------------|----------------------|-----------------------|--------------------|
| Workers | Inhalation | 77 mg/m ³ | Local chronic effects | |

n-butyl acetate

| Workers / consumers | Route of exposure | Value | Effect | Determining method |
|---------------------|-------------------|-----------------------|--------------------------|--------------------|
| Workers | Inhalation | 480 mg/m ³ | Systemic chronic effects | |

Solvent naphtha (petroleum), light arom.

| Workers / consumers | Route of exposure | Value | Effect | Determining method |
|---------------------|-------------------|-----------------------|-----------------------|--------------------|
| Workers | Inhalation | 608 mg/m ³ | Local chronic effects | |

xylene (mixture of isomers)

| Workers / consumers | Route of exposure | Value | Effect | Determining method |
|---------------------|-------------------|----------------------|--------------------------|--------------------|
| Workers | Inhalation | 77 mg/m ³ | Systemic chronic effects | |

8.2. Exposure controls

Follow the usual measures intended for health protection at work and especially for good ventilation. Ensure eye bath is to hand.

Eye/face protection

Tightly sealed goggles.

Skin protection

Hand protection: Protective gloves resistant to the product. When choosing appropriate thickness, material and permeability of the gloves, observe recommendations of their particular manufacturer. Observe other recommendations of the manufacturer. Rinse immediately contaminated clothing with plenty of water before removing clothes. Other protection: protective workwear.

Respiratory protection

Mask with a filter against organic vapours in a poorly ventilated environment.

Thermal hazard

Not available.

Environmental exposure controls

Observe usual measures for protection of the environment, see Section 6.2.

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SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

| | |
|----------------------------------------------|----------------------------------------------------|
| Appearance | |
| Physical state | liquid at 20°C |
| color | colourless |
| Odour | characteristic |
| Odour threshold | data not available |
| pH | data not available |
| Melting point/freezing point | data not available |
| Initial boiling point and boiling range | 126.3 °C (7,6 hPa) |
| Flash point | 28 °C (ISO 1523, closed cup Setaflash) |
| Evaporation rate | non-applicable |
| Flammability (solid, gas) | data not available |
| Upper/lower flammability or explosive limits | |
| flammability limits | data not available |
| explosive limits | data not available |
| Vapour pressure | 7.8 hPa at 20 °C |
| Vapour density | 0,97 g/cm ³ (20 °C, metoda: ISO 2811-1) |
| Relative density | data not available |
| Solubility(ies) | |
| solubility in water | insoluble |
| solubility in fats | data not available |
| Partition coefficient: n-octanol/water | data not available |
| Auto-ignition temperature | data not available |
| Decomposition temperature | data not available |
| Viscosity | 20 mPa.s (20 °C. ISO 2555) |
| Explosive properties | data not available |
| Oxidising properties | data not available |
| data not available | |

9.2. Other information

| | |
|----------------------|--------------------|
| Density | data not available |
| ignition temperature | data not available |

SECTION 10: Stability and reactivity**10.1. Reactivity**

The product is stable under normal conditions.

10.2. Chemical stability

The product is stable and no degradation occurs under normal use.

10.3. Possibility of hazardous reactions

The product is stable under normal conditions. Vapours mixed up with air can be explosive.

10.4. Conditions to avoid

Protect against flames, sparks, overheating.

10.5. Incompatible materials

Protect against strong acids, bases and oxidizing agents.

10.6. Hazardous decomposition products

Isocyanates.

SECTION 11: Toxicological information**11.1. Information on toxicological effects**

No toxicological data is available for the mixture.

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Acute toxicity

Harmful if inhaled.

ethylbenzene

| Route of exposure | Parameter | Method | Value | Time of exposure | Species | Sex | Determining method | Source |
|-------------------|------------------|----------|-------------|------------------|---------|-----|--------------------|--------|
| Oral | LD ₅₀ | OECD 401 | 3500 mg/kg | | Rat | | | |
| Dermal | LD ₅₀ | OECD 402 | 15400 mg/kg | | Rabbit | | | |
| Inhalation | LC ₅₀ | OECD 403 | 17.4 mg/l | 4 hour | Rat | | | |

hexamethylene diisocyanate, oligomers

| Route of exposure | Parameter | Method | Value | Time of exposure | Species | Sex | Determining method | Source |
|-------------------|------------------|----------|-------------|------------------|---------|-----|--------------------|--------|
| Oral | LD ₅₀ | OECD 401 | >2000 mg/kg | | Rat | | | |
| Inhalation | LC ₅₀ | OECD 403 | >0.543 mg/l | 4 hour | Rat | | | |
| Dermal | LD ₅₀ | OECD 402 | >2000 mg/kg | | Rat | | | |

n-butyl acetate

| Route of exposure | Parameter | Method | Value | Time of exposure | Species | Sex | Determining method | Source |
|-------------------|------------------|----------|-------------|------------------|---------|-----|--------------------|--------|
| Oral | LD ₅₀ | OECD 401 | 10768 mg/kg | | Rat | | | |
| Dermal | LD ₅₀ | OECD 402 | 17600 mg/kg | | Rabbit | | | |
| Inhalation | LC ₅₀ | OECD 403 | 23.4 mg/l | 4 hour | Rat | | | |

Solvent naphtha (petroleum), light arom.

| Route of exposure | Parameter | Method | Value | Time of exposure | Species | Sex | Determining method | Source |
|-------------------|------------------|----------|------------|------------------|---------|-----|--------------------|--------|
| Oral | LD ₅₀ | OECD 401 | 3592 mg/kg | | Rat | | | |
| Dermal | LD ₅₀ | OECD 402 | 3160 mg/kg | | Rabbit | | | |
| Inhalation | LC ₅₀ | | >20 mg/l | 4 hour | Rat | | | |

xylene (mixture of isomers)

| Route of exposure | Parameter | Method | Value | Time of exposure | Species | Sex | Determining method | Source |
|-------------------|------------------|----------|------------|------------------|---------|-----|----------------------|-----------------------------------------|
| Oral | LD ₅₀ | OECD 401 | 4300 mg/kg | | Rat | | | |
| Dermal | | | 1100 mg/kg | | | | Calculation of value | Converted acute toxicity point estimate |
| Inhalation | LC ₅₀ | OECD 403 | 22.08 mg/l | 4 hour | Rat | | | |

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

May cause an allergic skin reaction. Based on available data the classification criteria are not met.

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Germ cell mutagenicity

Based on available data the classification criteria are not met.

Carcinogenicity

Based on available data the classification criteria are not met.

Reproductive toxicity

Based on available data the classification criteria are not met.

Toxicity for specific target organ - single exposure

May cause drowsiness or dizziness.

Toxicity for specific target organ - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1. Toxicity

Acute toxicity

Data for the mixture are not available.

ethylbenzene

| Parameter | Method | Value | Time of exposure | Species | Environment |
|------------------|----------|----------|------------------|-------------------------|-------------|
| LC ₅₀ | OECD 203 | 12 mg/l | 96 hour | Fishes | |
| EC ₅₀ | OECD 202 | 1.8 mg/l | 48 hour | Daphnia (Daphnia magna) | |
| EC ₅₀ | OECD 201 | 33 mg/l | 72 hour | Algae | |

hexamethylene diisocyanate, oligomers

| Parameter | Method | Value | Time of exposure | Species | Environment |
|------------------|----------|----------|------------------|---------|-------------|
| EC ₅₀ | OECD 201 | 370 mg/l | 72 hour | Algae | |

n-butyl acetate

| Parameter | Method | Value | Time of exposure | Species | Environment |
|------------------|----------|----------|------------------|-------------------------------|-------------|
| LC ₅₀ | OECD 203 | 18 mg/l | 96 hour | Fishes | |
| EC ₅₀ | OECD 202 | 32 mg/l | 48 hour | Invertebrates (Daphnia magna) | |
| EC ₅₀ | OECD 201 | 675 mg/l | 72 hour | Algae | |

Solvent naphtha (petroleum), light arom.

| Parameter | Method | Value | Time of exposure | Species | Environment |
|------------------|----------|----------|------------------|-------------------------|-------------|
| LC ₅₀ | OECD 203 | 9.2 mg/l | 96 hour | Fishes | |
| EC ₅₀ | OECD 202 | 3.2 mg/l | 48 hour | Daphnia (Daphnia magna) | |
| EC ₅₀ | OECD 201 | 2.9 mg/l | 72 hour | Algae | |

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xylene (mixture of isomers)

| Parameter | Method | Value | Time of exposure | Species | Environment |
|------------------|----------|---------|------------------|---------|-------------|
| LC ₅₀ | OECD 203 | 14 mg/l | 96 hour | Fishes | |
| EC ₅₀ | OECD 202 | 16 mg/l | 48 hour | Daphnia | |

12.2. Persistence and degradability

Data not available.

12.3. Bioaccumulative potential

Not available.

12.4. Mobility in soil

Not available.

12.5. Results of PBT and vPvB assessment

Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

12.6. Other adverse effects

not available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste.

Legislation of waste

Council Directive 75/442/EEC on waste, as amended. Decree No. 383/2001 Coll., on details regarding waste handling as amended. Decree No. 93/2016 Coll., (waste catalogue) as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

Waste type code

08 01 11 waste paint and varnish containing organic solvents or other dangerous substances

Packaging waste type code

15 01 10 packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

14.1. UN number

UN 1263

14.2. UN proper shipping name

PAINT

14.3. Transport hazard class(es)

3 Flammable liquids

14.4. Packing group

III - substances presenting low danger

14.5. Environmental hazards

No

14.6. Special precautions for user

Reference in the Sections 4 to 8.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not available

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Additional information

| | | |
|---------------------------|-------------|---------------|
| Hazard identification No. | 30 | (Kemler Code) |
| UN number | 1263 | |
| Classification code | F1 | |
| Safety signs | 3 | |

**Air transport - ICAO/IATA**

| | |
|-------------------------------------------|------|
| Packaging instructions for limited amount | Y344 |
| Cargo packaging instructions | 366 |

Marine transport - IMDG

| | |
|----------------------|----------|
| EmS (emergency plan) | F-E, S-E |
| Marine pollution | No |

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16th December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006, as amended. The Act No. 350/2011 Coll., on Chemical Substances and Chemical Preparations as amended (the Chemical Act). The Act No. 350/2011 Coll., on Chemical Substances and Chemical Preparations as amended. The Act No. 258/2000 Coll., on Protection of Public Health as amended. Decree No. 361/2007 Coll., determining conditions of occupational health protection as amended. Decree No. 415/2012 Coll., on the permissible level of pollution and its determination and implementation of certain other provisions of the Air Protection Act as amended. The Act No. 185/2001 Coll., on Waste and the Amendment of Some Other Acts as amended. The Act No. 201/2012 Coll., on the Protection of Atmosphere – Clean Air Act as amended. Decree No. 432/2003 Coll., laying down conditions for assigning categories to individual jobs, limit values of indices from biological exposure tests, conditions for the sampling of biological materials for biological exposure and the particulars of the reports on work with asbestos and biological agents as amended. REGULATION (EC) No 648/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on detergents, as amended.

15.2. Chemical safety assessment

not available

SECTION 16: Other information**A list of standard risk phrases used in the safety data sheet**

| | |
|------|--------------------------------------------------------------------|
| H225 | Highly flammable liquid and vapour. |
| H226 | Flammable liquid and vapour. |
| H304 | May be fatal if swallowed and enters airways. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |

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H411 Toxic to aquatic life with long lasting effects.
H312+H332 Harmful in contact with skin or if inhaled.

Guidelines for safe handling used in the safety data sheet

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P260 Do not breathe vapours/spray.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331 Do NOT induce vomiting.
P362 Take off contaminated clothing.
P364 And wash it before reuse.
P370+P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P403 Store in a well-ventilated place.
P501 Dispose of contents/container to in accordance with national regulations.

A list of additional standard phrases used in the safety data sheet

EUH 066 Repeated exposure may cause skin dryness or cracking.
EUH 204 Contains isocyanates. May produce an allergic reaction.

Other important information about human health protection

The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per the Section 1. The user is responsible for adherence to all related health protection regulations.

Key to abbreviations and acronyms used in the safety data sheet

ADR European agreement concerning the international carriage of dangerous goods by road
BCF Bioconcentration Factor
CAS Chemical Abstracts Service
CLP Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
DNEL Derived no-effect level
EC Identification code for each substance listed in EINECS
EC₅₀ Concentration of a substance when it is affected 50% of the population
EINECS European Inventory of Existing Commercial Chemical Substances
EmS Emergency plan
EU European Union
IATA International Air Transport Association
IBC International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
IC₅₀ Concentration causing 50% blockade
ICAO International Civil Aviation Organization
IMDG International Maritime Dangerous Goods
INCI International Nomenclature of Cosmetic Ingredients
ISO International Organization for Standardization
IUPAC International Union of Pure and Applied Chemistry
LC₅₀ Lethal concentration of a substance in which it can be expected death of 50% of the population
LD₅₀ Lethal dose of a substance in which it can be expected death of 50% of the population
LOAEC Lowest observed adverse effect concentration
LOAEL Lowest observed adverse effect level
log Kow Octanol-water partition coefficient
MARPOL International Convention for the Prevention of Pollution From Ships
NOAEC No observed adverse effect concentration
NOAEL No observed adverse effect level
NOEC No observed effect concentration

HARDENER / HARDENER FAST

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|---------------|---------------|---------|-----|
| Creation date | 19. June 2018 | Version | 1.1 |
| Revision date | | | |

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|-------|---------------------------------------------------------------------------------------------------|
| NOEL | No observed effect level |
| OEL | Occupational Exposure Limits |
| PBT | Persistent, Bioaccumulative and Toxic |
| PNEC | Predicted no-effect concentration |
| ppm | Parts per million |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals |
| RID | Agreement on the transport of dangerous goods by rail |
| UN | Four-figure identification number of the substance or article taken from the UN Model Regulations |
| UVCB | Substances of unknown or variable composition, complex reaction products or biological materials |
| VOC | Volatile organic compounds |
| vPvB | Very Persistent and very Bioaccumulative |

| | |
|-----------------|----------------------------------------------------|
| Acute Tox. | Acute toxicity |
| Aquatic Chronic | Hazardous to the aquatic environment |
| Asp. Tox. | Aspiration hazard |
| Eye Irrit. | Eye irritation |
| Flam. Liq. | Flammable liquid |
| Skin Irrit. | Skin irritation |
| Skin Sens. | Skin sensitization |
| STOT RE | Specific target organ toxicity - repeated exposure |
| STOT SE | Specific target organ toxicity - single exposure |

Training guidelines

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

Recommended restrictions of use

not available

Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended. REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. The Act No. 350/2011 Coll., on Chemical Substances and Chemical Preparations as amended. Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

The changes (which information has been added, deleted or modified)

2, 3, 8, 11, 12, 15, 16

Statement

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.