

Trade Name: Hardener H1

Version: 8 / GB

Date revised: 15.08.2016

Replaces Version: 7 / GB

Print date: 16.08.16

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

1.1. Product identifier

Hardener H1

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

Use of the substance/preparation

Screen and pad printing auxiliary

Identified Uses

| | |
|--------|--|
| SU3 | Industrial uses: Uses of substances as such or in preparations at industrial sites |
| SU22 | Professional uses: Public domain (administration, education, entertainment, services, craftsmen) |
| PROC1 | Use in closed process, no likelihood of exposure |
| PROC2 | Use in closed, continuous process with occasional controlled exposure |
| PROC3 | Use in closed batch process (synthesis or formulation) |
| PROC4 | Use in batch and other process (synthesis) where opportunity for exposure arises |
| PROC5 | Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact) |
| PROC8a | Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities |
| PROC8b | Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities |
| PROC10 | Roller application or brushing |
| PROC11 | Non industrial spraying |
| PROC13 | Treatment of articles by dipping and pouring |
| PROC19 | Hand-mixing with intimate contact and only PPE available |
| ERC4 | Industrial use of processing aids in processes and products, not becoming part of articles |
| ERC8a | Wide dispersive indoor use of processing aids in open systems |
| ERC8d | Wide dispersive outdoor use of processing aids in open systems |

Uses advised against

SU21 Consumer uses: Private households (= general public = consumers)

1.3. Details of the supplier of the safety data sheet

ITW Trans Tech
475 North Gary Avenue
Carol Stream, IL 60188
USA

Ph: 630-752-4000

Web: www.itwids.com

1.4. Emergency telephone number

(352-323-3500 InfoTrac)

SECTION 2: Hazards identification ***

2.1. Classification of the substance or mixture

Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade Name: Hardener H1

Version: 8 / GB

Date revised: 15.08.2016

Replaces Version: 7 / GB

Print date: 16.08.16

Classification (Regulation (EC) No. 1272/2008)

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| | |
|---------------|------|
| Flam. Liq. 3 | H226 |
| Acute Tox. 4 | H332 |
| Skin Sens. 1 | H317 |
| STOT SE 3 | H335 |
| Skin Irrit. 2 | H315 |
| Eye Irrit. 2 | H319 |
| STOT RE 2 | H373 |

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Hazard pictograms



Signal word ***

Warning

Hazard statements ***

| | |
|------|--|
| H226 | Flammable liquid and vapour. |
| H332 | Harmful if inhaled. |
| H317 | May cause an allergic skin reaction. |
| H335 | May cause respiratory irritation. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| 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 dust/fume/gas/mist/vapours/spray. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep 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. |
| P312 | Call a POISON CENTER or doctor if you feel unwell. |

Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)

| | |
|----------|---|
| contains | Ethyl benzene;Hexamethylene diisocyanate;Xylene;Hexamethylene-1,6-diisocyanate, homopolymer |
|----------|---|

Supplemental information

| | |
|--------|---|
| EUH204 | Contains isocyanates. May produce an allergic reaction. |
|--------|---|

2.3. Other hazards

No special hazards have to be mentioned.

SECTION 3: Composition/information on ingredients ***

3.2. Mixtures

Chemical characterization

Polyfunctional aliphatic isocyanate in solvents

Hazardous ingredients

Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade Name: Hardener H1

Version: 8 / GB

Date revised: 15.08.2016

Replaces Version: 7 / GB

Print date: 16.08.16

Hexamethylene-1,6-diisocyanate, homopolymer

CAS No. 28182-81-2
Registration no. 01-2119970543-34
Concentration >= 55 < 85 %

Classification (Regulation (EC) No. 1272/2008)

Skin Sens. 1 H317
Acute Tox. 4 H332
STOT SE 3 H335

Xylene

CAS No. 1330-20-7
EINECS no. 215-535-7
Registration no. 01-2119488216-32/01-2119486136-34
Concentration >= 10 < 13 %

Classification (Regulation (EC) No. 1272/2008)

Skin Irrit. 2 H315
Flam. Liq. 3 H226
Acute Tox. 4 H332
Acute Tox. 4 H312
Eye Irrit. 2 H319
STOT SE 3 H335
STOT RE 2 H373
Asp. Tox. 1 H304

Ethyl benzene

CAS No. 100-41-4
EINECS no. 202-849-4
Registration no. 01-2119489370-35
Concentration >= 1 < 2,1 %

Classification (Regulation (EC) No. 1272/2008)

Flam. Liq. 2 H225
Acute Tox. 4 H332
STOT RE 2 H373 Ear
Asp. Tox. 1 H304

Hexamethylene diisocyanate

CAS No. 822-06-0
EINECS no. 212-485-8
Registration no. 01-2119457571-37
Concentration >= 0,1 < 0,34 %

Classification (Regulation (EC) No. 1272/2008)

Acute Tox. 3 H331
Eye Irrit. 2 H319
STOT SE 3 H335
Skin Irrit. 2 H315
Resp. Sens. 1 H334
Skin Sens. 1 H317

Concentration limits (Regulation (EC) No. 1272/2008)

Resp. Sens. 1 H334 >= 0,5
Skin Sens. 1 H317 >= 0,5

Further hazardous ingredients ***

Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade Name: Hardener H1

Version: 8 / GB

Date revised: 15.08.2016

Replaces Version: 7 / GB

Print date: 16.08.16

2-Methoxy-1-methylethyl acetate

CAS No. 108-65-6

EINECS no. 203-603-9

Registration no. 01-2119475791-29

Concentration >= 10 < 25 % [3]

Classification (Regulation (EC) No. 1272/2008)

Flam. Liq. 3 H226

*
*
*

[3] Substance with occupational exposure limits

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious place in recovery position and seek medical advice.

After inhalation

Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, administer artificial respiration.

After skin contact

Remove contaminated clothing. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.

After eye contact

Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.

After ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

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

Until now no symptoms known so far.

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

Hints for the physician / treatment

Treat symptomatically

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Recommended: alcohol resistant foam, CO₂, powders, water spray/mist, Not be used for safety reasons: water jet

5.2. Special hazards arising from the substance or mixture

In the event of fire the following can be released: Carbon monoxide (CO); Carbon dioxide (CO₂); dense black smoke; Nitrogen oxides (NO_x); Hydrogen cyanide (HCN)

5.3. Advice for firefighters

Special protective equipment for fire-fighting

Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade Name: Hardener H1

Version: 8 / GB

Date revised: 15.08.2016

Replaces Version: 7 / GB

Print date: 16.08.16

Cool closed containers exposed to fire with water. Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Exclude sources of ignition and ventilate the area. Avoid breathing vapours. Refer to protective measures listed in Sections 7 and 8.

6.2. Environmental precautions

Do not allow to enter drains or waterways. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.

6.3. Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth. Place in a suitable container. The contaminated area should be cleaned up immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): water (45 parts), ethanol or isopropyl alcohol (50 parts), concentrated (d = 0,880) ammonia solution (5 parts). A non-flammable alternative is sodium carbonate (5 parts), water (95 parts). Add the same decontaminant to the remnants and let stand for several days until no further reaction in non-sealed container. Once this stage is reached, close container and dispose according to local regulations (see section 13).

6.4. Reference to other sections

Information regarding Safe handling, see Section 7. Information regarding personal protective measures, see Section 8. Information regarding waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. Mixture may charge electrostatically: always use earthing leads when transferring from one container to another. Operators should wear anti-static footwear and clothing and floors should be of the conducting type. Care should be taken when re-opening partly used containers. Precautions should be taken to minimise exposure to atmospheric humidity or water: CO₂ will be formed which in closed containers can result in pressurisation. Isolate from sources of heat, sparks and open flame. No sparking tools should be used. Avoid skin and eye contact. Avoid the inhalation of dust, particulates and spray mist arising from the application of this mixture. Avoid inhalation of dust from sanding. Smoking, eating and drinking shall be prohibited in application area. For personal protection see Section 8. Never use pressure to empty: container is not a pressure vessel. Always keep in containers of same material as the original one. Comply with the health and safety at work laws. Do not allow to enter drains or water courses.

Advice on protection against fire and explosion

Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

Classification of fires / temperature class / Ignition group / Dust explosion class

| | |
|-------------------------|-----------------------------------|
| Classification of fires | B (Combustible liquid substances) |
| Temperature class | T2 |

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Electrical installations/working materials must comply with the local applied technological safety standards. Storage rooms in which filling operations take place must have a conducting floor. Store in

Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade Name: Hardener H1

Version: 8 / GB

Date revised: 15.08.2016

Replaces Version: 7 / GB

Print date: 16.08.16

accordance with national regulation

Hints on storage assembly

Store away from oxidising agents, from strongly alkaline and strongly acid materials as well as amines, alcohols and water.

Further information on storage conditions

Observe label precautions. Store between 15 and 30 °C in a dry, well ventilated place away from sources of heat and direct sunlight. Keep container tightly closed. Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3. Specific end use(s)

Screen and pad printing auxiliary

SECTION 8: Exposure controls/personal protection ***

8.1. Control parameters

Exposure limit values ***

Ethyl benzene

| | | | | |
|---|------|-------------------|-----|--------|
| List | EH40 | | | |
| Type | WEL | | | |
| Value | 441 | mg/m ³ | 100 | ppm(V) |
| Short term exposure limit | 552 | mg/m ³ | 125 | ppm(V) |
| Skin resorption / sensibilisation: Sk; Status: 2011 | | | | |

2-Methoxy-1-methylethyl acetate

| | | | | |
|---|------|-------------------|-----|--------|
| List | EH40 | | | |
| Type | WEL | | | |
| Value | 274 | mg/m ³ | 50 | ppm(V) |
| Short term exposure limit | 548 | mg/m ³ | 100 | ppm(V) |
| Skin resorption / sensibilisation: Sk; Status: 2011 | | | | |

Xylene

| | | | | |
|---|------|-------------------|-----|--------|
| List | EH40 | | | |
| Type | WEL | | | |
| Value | 220 | mg/m ³ | 50 | ppm(V) |
| Short term exposure limit | 441 | mg/m ³ | 100 | ppm(V) |
| Skin resorption / sensibilisation: Sk; Status: 2005 | | | | |

Derived No/Minimal Effect Levels (DNEL/DMEL)

Xylene

| | | |
|----------------------|--------------------------------|-------------------|
| Type of value | Derived No Effect Level (DNEL) | |
| Reference group | Worker | |
| Duration of exposure | Short term | |
| Route of exposure | inhalative | |
| Mode of action | Systemic effects | |
| Concentration | 289 | mg/m ³ |

| | | |
|----------------------|--------------------------------|-------------------|
| Type of value | Derived No Effect Level (DNEL) | |
| Reference group | Worker | |
| Duration of exposure | Short term | |
| Route of exposure | inhalative | |
| Mode of action | Local effects | |
| Concentration | 289 | mg/m ³ |

| | | |
|----------------------|--------------------------------|--|
| Type of value | Derived No Effect Level (DNEL) | |
| Reference group | Worker | |
| Duration of exposure | Long term | |
| Route of exposure | dermal | |

Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade Name: Hardener H1

Version: 8 / GB

Date revised: 15.08.2016

Replaces Version: 7 / GB

Print date: 16.08.16

Mode of action Systemic effects
 Concentration 180 mg/kg

Type of value Derived No Effect Level (DNEL)
 Reference group Worker
 Duration of exposure Long term
 Route of exposure inhalative

Mode of action Systemic effects
 Concentration 77 mg/m³

Type of value Derived No Effect Level (DNEL)
 Reference group Consumer
 Duration of exposure Short term
 Route of exposure inhalative
 Mode of action Systemic effects
 Concentration 174 mg/m³

Type of value Derived No Effect Level (DNEL)
 Reference group Consumer
 Duration of exposure Short term
 Route of exposure inhalative
 Mode of action Local effects
 Concentration 174 mg/m³

Type of value Derived No Effect Level (DNEL)
 Reference group Consumer
 Duration of exposure Lifetime
 Route of exposure dermal
 Mode of action Systemic effects
 Concentration 108 mg/kg

Type of value Derived No Effect Level (DNEL)
 Reference group Consumer
 Duration of exposure Lifetime
 Route of exposure oral
 Mode of action Systemic effects
 Concentration 1,6 mg/kg

Type of value Derived No Effect Level (DNEL)
 Reference group Consumer
 Duration of exposure Lifetime
 Route of exposure inhalative
 Mode of action Systemic effects
 Concentration 14,8 mg/m³

2-Methoxy-1-methylethyl acetate

Reference substance 2-Methoxy-1-methylethyl acetate
 Type of value Derived No Effect Level (DNEL)
 Reference group Worker
 Duration of exposure Long term
 Route of exposure dermal
 Mode of action Systemic effects
 Concentration 153,5 mg/kg
 Source Literature value

Type of value Derived No Effect Level (DNEL)
 Reference group Worker

Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade Name: Hardener H1

Version: 8 / GB

Date revised: 15.08.2016

Replaces Version: 7 / GB

Print date: 16.08.16

Duration of exposure Long term
 Route of exposure inhalative
 Mode of action Systemic effects
 Concentration 275 mg/m³
 Source Literature value

Type of value Derived No Effect Level (DNEL)
 Reference group Consumer
 Duration of exposure Long term
 Route of exposure dermal
 Mode of action Systemic effects
 Concentration 54,8 mg/kg
 Source Literature value

Type of value Derived No Effect Level (DNEL)
 Reference group Consumer
 Duration of exposure Long term
 Route of exposure inhalative
 Mode of action Systemic effects
 Concentration 33 mg/m³
 Source Literature value

Type of value Derived No Effect Level (DNEL)
 Reference group Consumer
 Duration of exposure Long term
 Route of exposure oral
 Mode of action Systemic effects
 Concentration 1,67 mg/kg
 Source Literature value

Hexamethylene-1,6-diisocyanate, homopolymer

Type of value Derived No Effect Level (DNEL)
 Reference group Worker
 Duration of exposure Long term
 Route of exposure inhalative
 Mode of action Local effects
 Concentration 0,5 mg/m³

Type of value Derived No Effect Level (DNEL)
 Reference group Worker
 Duration of exposure Short term
 Route of exposure inhalative
 Mode of action Local effects
 Concentration 1 mg/m³

Predicted No Effect Concentration (PNEC)

Xylene

Type of value PNEC
 Type Freshwater
 Concentration 0,327 mg/l

Type of value PNEC
 Type Saltwater
 Concentration 0,327 mg/l

Type of value PNEC
 Type Freshwater sediment

Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade Name: Hardener H1

Version: 8 / GB

Date revised: 15.08.2016

Replaces Version: 7 / GB

Print date: 16.08.16

| | | |
|---------------|------------------------------|-------|
| Concentration | 12,46 | mg/kg |
| Type of value | PNEC | |
| Type | Marine sediment | |
| Concentration | 12,46 | mg/kg |
| Type of value | PNEC | |
| Type | Soil | |
| Concentration | 2,31 | mg/kg |
| Type of value | PNEC | |
| Type | Sewage treatment plant (STP) | |
| Concentration | 6,58 | mg/l |
| Type of value | PNEC | |
| Type | Water (intermittent release) | |
| Concentration | 0,327 | mg/l |

2-Methoxy-1-methylethyl acetate

| | | |
|---------------------|---------------------------------|-------|
| Reference substance | 2-Methoxy-1-methylethyl acetate | |
| Type of value | PNEC | |
| Type | Freshwater | |
| Concentration | 0,635 | mg/l |
| Source | Literature value | |
| Type of value | PNEC | |
| Type | Freshwater sediment | |
| Concentration | 3,29 | mg/kg |
| Source | Literature value | |
| Type of value | PNEC | |
| Type | Soil | |
| Concentration | 0,29 | mg/kg |
| Source | Literature value | |
| Type of value | PNEC | |
| Type | Sewage treatment plant (STP) | |
| Concentration | 100 | mg/l |
| Source | Literature value | |
| Type of value | PNEC | |
| Type | Marine sediment | |
| Concentration | 0,329 | mg/kg |
| Source | Literature value | |
| Type of value | PNEC | |
| Type | Saltwater | |
| Concentration | 0,0635 | mg/l |

Hexamethylene-1,6-diisocyanate, homopolymer

| | | |
|---------------|------------------------------|------|
| Type of value | PNEC | |
| Type | Sewage treatment plant (STP) | |
| Concentration | 6,46 | mg/l |

8.2. Exposure controls

Exposure controls

Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade Name: Hardener H1

Version: 8 / GB

Date revised: 15.08.2016

Replaces Version: 7 / GB

Print date: 16.08.16

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Air-fed protective respiratory equipment must be worn by spray operator even when good ventilation is provided. In other operations, if local exhaust ventilation and good general extraction are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL, suitable respiratory protection must be worn. (See Personal Protection.). Dry sanding, flame cutting and/or welding of the dry paint film may give rise to dust and/or hazardous fumes. Wet [sanding]/[flattening] should be used wherever possible. If exposure cannot be avoided by the provision of local exhaust ventilation, suitable respiratory protective equipment should be used. Under cool dry conditions, it is possible for the isocyanate to remain unreacted in the paint film for up to 30 hours after application. If dry flattening is unavoidable air fed respiratory protective equipment should be used.

Respiratory protection

When spraying: air fed respirator. For operations other than spraying: In well ventilated areas, air-fed respirators could be replaced by a combination of charcoal filter and particulate filter mask.

Hand protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

For prolonged or repeated handling nitrile rubber gloves with textile undergloves are required.

Material thickness > 0,5 mm

Breakthrough time < 30 min

The breakthrough time must be greater than the end use time of the product.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance or effectiveness of the glove may be reduced by physical/ chemical damage and poor maintenance.

Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred.

Eye protection

Use safety eyewear designed to protect against splash of liquids.

Body protection

Personnel should wear anti-static clothing made of natural fibre or of high temperature resistant synthetic fibre.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|-------------------------|
| Form | Liquid |
| Colour | colourless to yellowish |
| Odour | solvent-like |
| Odour threshold | |
| Remarks | No data available |
| pH value | |
| Remarks | Not applicable |
| Melting point | |
| Remarks | not determined |
| Freezing point | |
| Remarks | not determined |
| Initial boiling point and boiling range | |
| Value | appr. 137 °C |
| Pressure | 1.013 hPa |

Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade Name: Hardener H1

Version: 8 / GB

Date revised: 15.08.2016

Replaces Version: 7 / GB

Print date: 16.08.16

Source Literature value

Flash point

Value 39 °C

Method ASTM D 6450 (CCCFP)

Evaporation rate (ether = 1) :

Remarks not determined

Flammability (solid, gas)

Not applicable

Upper/lower flammability or explosive limits

Lower explosion limit appr. 1,1 %(V)

Upper explosion limit appr. 10,8 %(V)

Source Literature value

Vapour pressure

Value appr. 10 hPa

Temperature 20 °C

Method calculated

Vapour density

Remarks not determined

DensityValue 1,060 g/cm³

Temperature 20 °C

Method DIN EN ISO 2811

Solubility in water

Remarks partially miscible

Partition coefficient: n-octanol/water

Remarks Not applicable

Ignition temperature

Value 425 °C

Viscosity**dynamic**

Value 150 to 400 mPa.s

Temperature 20 °C

Method Brookfield

kinematicValue 90 mm²/s

Temperature 40 °C

Efflux time

Value < 12 s

Method DIN 53211 4 mm

Explosive properties

evaluation no

Oxidising properties

evaluation None known

9.2. Other information**Other information**

The physical specifications are approximate values and refer to the used safety relevant component(s).

SECTION 10: Stability and reactivity

Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade Name: Hardener H1

Version: 8 / GB

Date revised: 15.08.2016

Replaces Version: 7 / GB

Print date: 16.08.16

10.1. Reactivity

The product reacts slowly with water resulting in evolution of carbon dioxide.

10.2. Chemical stability

Stable under recommended storage and handling conditions (see section 7).

10.3. Possibility of hazardous reactions

Keep away from oxidising agents, strongly alkaline and strongly acid materials, amines, alcohols and water. In closed containers, pressure build up could result in distortion, blowing and in extreme cases bursting of the container.

10.4. Conditions to avoid

In a fire, hazardous decomposition products may be produced.

10.5. Incompatible materials

Uncontrolled exothermic reactions occur with amines and alcohols.

10.6. Hazardous decomposition products

such as smoke, carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide, monomeric isocyanates.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity

Remarks Based on available data, the classification criteria are not met.

Acute dermal toxicity

Remarks Based on available data, the classification criteria are not met.

Acute dermal toxicity (Components)

Xylene

| | | | |
|---------|--------|------|-------|
| Species | rabbit | | |
| LD50 | > | 4200 | mg/kg |

Acute inhalational toxicity

| | | |
|---------------------|--|------|
| ATE | 14,1388 | mg/l |
| Administration/Form | Vapors | |
| Method | calculated value (Regulation (EC) No. 1272/2008) | |
| ATE | 1,6835 | mg/l |
| Administration/Form | Dust/Mist | |
| Method | calculated value (Regulation (EC) No. 1272/2008) | |
| Remarks | The classification criteria are met. | |

Acute inhalative toxicity (Components)

Xylene

| | | | |
|----------------------|--------|----|------|
| Species | rat | | |
| LC50 | > | 29 | mg/l |
| Duration of exposure | 4 | h | |
| Administration/Form | Vapors | | |

Skin corrosion/irritation

evaluation irritant
Remarks The classification criteria are met.

Serious eye damage/irritation

evaluation irritant
Remarks The classification criteria are met.

Sensitization

Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade Name: Hardener H1

Version: 8 / GB

Date revised: 15.08.2016

Replaces Version: 7 / GB

Print date: 16.08.16

evaluation
Remarks
May cause sensitization by skin contact.
The classification criteria are met.

Mutagenicity

Remarks
Based on available data, the classification criteria are not met.

Reproductive toxicity

Remarks
Based on available data, the classification criteria are not met.

Carcinogenicity

Remarks
Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity (STOT)

Single exposure

Remarks
evaluation
The classification criteria are met.
May cause respiratory irritation.

Repeated exposure

Remarks
evaluation
The classification criteria are met.
May cause damage to organs through prolonged or repeated exposure

Aspiration hazard

Based on available data, the classification criteria are not met.

Experience in practice

Exposure to component solvents vapours concentration in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin. Irritating to skin. May cause an allergic skin reaction. The liquid splashed in the eyes may cause irritation and reversible damage. Ingestion may cause nausea, diarrhoea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Other information

There are no data available on the mixture itself.
The mixture has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly.

SECTION 12: Ecological information

12.1. Toxicity

General information

There are no data available on the mixture itself. Do not allow to enter drains or water courses. The mixture has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is not classified as dangerous for the environment.

12.2. Persistence and degradability

General information

No data available

12.3. Bioaccumulative potential

General information

There are no data available on the mixture itself.

Partition coefficient: n-octanol/water

Remarks
Not applicable

Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade Name: Hardener H1

Version: 8 / GB

Date revised: 15.08.2016

Replaces Version: 7 / GB

Print date: 16.08.16

12.4. Mobility in soil

General information

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

General information

There are no data available on the mixture itself.

12.6. Other adverse effects

General information

There are no data available on the mixture itself.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations for the product

Do not allow to enter drains or water courses.

Residues in empty containers should be neutralised with decontaminant (see section 6).

Wastes and emptied containers should be classified in accordance with relevant national regulation.

The European Waste Catalogue classification of this product, when disposed of as waste is

EWC waste code 08 03 12* waste ink containing dangerous substances

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.

For further information contact your local waste authority.

Disposal recommendations for packaging

Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers.

Empty containers must be scrapped or reconditioned.

Not emptied containers are hazardous waste (waste code number 150110).

SECTION 14: Transport information

Land transport ADR/RID

14.1. UN number

UN 1263

14.2. UN proper shipping name

PAINT RELATED MATERIAL

14.3. Transport hazard class(es)

Class 3

Label 3

14.4. Packing group

Packing group III

Special provision 640E

Limited Quantity 5 I

Transport category 4

14.5. Environmental hazards

-

Tunnel restriction code D/E

Marine transport IMDG/GGVSee

14.1. UN number

UN 1263

14.2. UN proper shipping name

PAINT RELATED MATERIAL

14.3. Transport hazard class(es)

Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade Name: Hardener H1

Version: 8 / GB

Date revised: 15.08.2016

Replaces Version: 7 / GB

Print date: 16.08.16

Class 3
14.4. Packing group
Packing group III
14.5. Environmental hazards
no

Air transport ICAO/IATA

14.1. UN number
UN 1263
14.2. UN proper shipping name
PAINT RELATED MATERIAL
14.3. Transport hazard class(es)
Class 3
14.4. Packing group
Packing group III
14.5. Environmental hazards
-

Information for all modes of transport

14.6. Special precautions for user

Transport within the user's premises:

Always transport in closed containers that are upright and secure.

Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Other information

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

no

SECTION 15: Regulatory information

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

Major-accident categories acc. 96/82/EC

| | | | | | | |
|----------|---|-----------|-----------|----|------------|----|
| Category | 6 | Flammable | 5.000.000 | kg | 50.000.000 | kg |
|----------|---|-----------|-----------|----|------------|----|

VOC

| | | | | |
|----------|------|---|-------|-----|
| VOC (EU) | 25,5 | % | 270,3 | g/l |
|----------|------|---|-------|-----|

Other information

The product does not contain substances of very high concern (SVHC).

Other information

All components are contained in the TSCA inventory or exempted.

All components are contained in the AICS inventory.

All components are contained in the PICCS inventory.

All components are contained in the DSL inventory.

All components are contained in the IECSC inventory.

All components are contained in the ECL inventory.

15.2. Chemical safety assessment

For this preparation a chemical safety assessment has not been carried out.

SECTION 16: Other information

Hazard statements listed in Chapter 3

| | |
|------|---|
| H225 | Highly flammable liquid and vapour. |
| H226 | Flammable liquid and vapour. |
| H304 | May be fatal if swallowed and enters airways. |
| H312 | Harmful in contact with skin. |

Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade Name: Hardener H1

Version: 8 / GB

Date revised: 15.08.2016

Replaces Version: 7 / GB

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| | |
|------|--|
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H331 | Toxic if inhaled. |
| H332 | Harmful if inhaled. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335 | May cause respiratory irritation. |
| H373 | May cause damage to organs through prolonged or repeated exposure: |

CLP categories listed in Chapter 3

| | |
|---------------|--|
| Acute Tox. 3 | Acute toxicity, Category 3 |
| Acute Tox. 4 | Acute toxicity, Category 4 |
| Asp. Tox. 1 | Aspiration hazard, Category 1 |
| Eye Irrit. 2 | Eye irritation, Category 2 |
| Flam. Liq. 2 | Flammable liquid, Category 2 |
| Flam. Liq. 3 | Flammable liquid, Category 3 |
| Resp. Sens. 1 | Respiratory sensitization, Category 1 |
| Skin Irrit. 2 | Skin irritation, Category 2 |
| Skin Sens. 1 | Skin sensitization, Category 1 |
| STOT RE 2 | Specific target organ toxicity - repeated exposure, Category 2 |
| STOT SE 3 | Specific target organ toxicity - single exposure, Category 3 |

Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: ***

This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.

The information in this Safety Data Sheet is based on the present state of knowledge and current legislation.

It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.

The product should not be used for purposes other than those shown in Section 1 without first referring to the supplier and obtaining written handling instructions.

As the specific conditions of use of the product are outside the supplier's control, the user is responsible for ensuring that the requirements of relevant legislation are complied with.

The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation.