

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 12.04.2016

Version number 5

Revision: 12.04.2016

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

- 1.1 Product identifier
- Trade name: **UNILUX Epoxy Primer 60 Grey 4:1**
- Article number: 4238
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
- Sector of Use
  - SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
  - SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
- Application of the substance / the mixture Paint
- 1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier:
  - Carolux
  - Kerkenbos 10-77T
  - 6546BB Nijmegen
  - Holland
  - T +31 (0)24 36 05 601
  - E info@carolux.nl
  - W www.carolux.nl
- Further information obtainable from: info@carolux.nl
- 1.4 Emergency telephone number:
  - National Poisoning Information Centre - Bilthoven - The Netherlands
  - T +31 (0)30 274 88 88
  - Restricted to physicians for information on ingredients.

### \* SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Liq. 2      H225 Highly flammable liquid and vapour.



GHS08 health hazard

STOT RE 2      H373 May cause damage to organs through prolonged or repeated exposure.



GHS07

Skin Irrit. 2      H315 Causes skin irritation.  
 Eye Irrit. 2      H319 Causes serious eye irritation.  
 Skin Sens. 1      H317 May cause an allergic skin reaction.  
 STOT SE 3      H335 May cause respiratory irritation.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

- 2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008  
The product is classified and labelled according to the CLP regulation.
- Hazard pictograms



GHS02



GHS07



GHS08

- Signal word Danger

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- Hazard-determining components of labelling:  
Bisphenol A-Epichlorohydrin resin  
xylene  
Fatty acids, tall-oil, esters with polyethylene glycol mono(hydrogen maleate), compounds with amides from diethylenetriamine and tall-oil fatty acids
- Hazard statements  
H225 Highly flammable liquid and vapour.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H317 May cause an allergic skin reaction.  
H335 May cause respiratory irritation.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H412 Harmful to aquatic life with long lasting effects.
- Precautionary statements  
P260 Do not breathe mist/vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P314 Get medical advice/attention if you feel unwell.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- Additional information:  
Restricted to professional users.
- 2.3 Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

### SECTION 3: Composition/information on ingredients

- 3.2 Chemical characterisation: Mixtures
- Description: Mixture of substances listed below with nonhazardous additions.
- Dangerous components %(m/m):

CAS: 1330-20-7	xylene	10-25%
EINECS: 215-535-7		
Reg.nr.: 01-2119488216-32		
⚠ Flam. Liq. 3, H226; ⚠ STOT RE 2, H373; Asp. Tox. 1, H304; ⚠ Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335		
CAS: 25036-25-3	Bisphenol A-Epichlorohydrin resin	10-25%
⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317		
CAS: 64742-95-6	Hydrocarbons, C9, aromatics	2,5-10%
EC number: 918-668-5		
Reg.nr.: 01-2119455851-35		
⚠ Flam. Liq. 3, H226; ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Chronic 2, H411; ⚠ STOT SE 3, H335-H336		
CAS: 100-41-4	ethylbenzene	2,5-10%
EINECS: 202-849-4		
Reg.nr.: 01-2119489370-35		
⚠ Flam. Liq. 2, H225; ⚠ STOT RE 2, H373; Asp. Tox. 1, H304; ⚠ Acute Tox. 4, H332; Aquatic Chronic 3, H412		
CAS: 108-65-6	2-methoxy-1-methylethyl acetate	0,5-2,5%
EINECS: 203-603-9		
Reg.nr.: 01-2119475791-29		
⚠ Flam. Liq. 3, H226		
CAS: 78-83-1	butanol	0,5-2,5%
EINECS: 201-148-0		
Reg.nr.: 01-2119484609-23		
⚠ Flam. Liq. 3, H226; ⚠ Eye Dam. 1, H318; ⚠ Skin Irrit. 2, H315; STOT SE 3, H335-H336		
CAS: 222716-38-3	Fatty acids, tall-oil, esters with polyethylene glycol mono(hydrogen maleate), compounds with amides from diethylenetriamine and tall-oil fatty acids	≤ 0,5%
⚠ STOT RE 2, H373; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317		

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- Additional information: For the wording of the listed risk phrases refer to section 16.

### SECTION 4: First aid measures

- 4.1 Description of first aid measures
- General information:  
Immediately remove any clothing soiled by the product.  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- After inhalation:  
Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact:  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.  
Remove contactlenses.
- After swallowing:  
Do not induce vomiting; call for medical help immediately.  
Rinse mouth.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed  
No further relevant information available.

### SECTION 5: Firefighting measures

- 5.1 Extinguishing media
- Suitable extinguishing agents: CO<sub>2</sub> or powder. Fight larger fights with alcohol resistant foam.
- For safety reasons unsuitable extinguishing agents: Water with full jet
- 5.2 Special hazards arising from the substance or mixture  
During heating or in case of fire poisonous gases are produced.  
Carbon monoxide (CO)
- 5.3 Advice for firefighters
- Protective equipment: Wear self-contained respiratory protective device.

### SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures  
Mount respiratory protective device.  
Wear protective equipment. Keep unprotected persons away.
- 6.2 Environmental precautions:  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.
- 6.3 Methods and material for containment and cleaning up:  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- 6.4 Reference to other sections  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

- 7.1 Precautions for safe handling  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- Information about fire - and explosion protection:  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.  
Keep respiratory protective device available.

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- 7.2 Conditions for safe storage, including any incompatibilities
- Storage:
  - Requirements to be met by storerooms and receptacles:
    - Store in a cool location.
    - Store only in the original receptacle.
  - Information about storage in one common storage facility: Store away from oxidising agents.
  - Further information about storage conditions: Keep container tightly sealed.
- Storage class: 3
- 7.3 Specific end use(s) No further relevant information available.

### \* SECTION 8: Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.
- 8.1 Control parameters
- Ingredients with limit values that require monitoring at the workplace:

#### 1330-20-7 xylene

IOELV Short-term value: 442 mg/m<sup>3</sup>, 100 ppm  
 Long-term value: 221 mg/m<sup>3</sup>, 50 ppm  
 Skin

#### 100-41-4 ethylbenzene

IOELV Short-term value: 884 mg/m<sup>3</sup>, 200 ppm  
 Long-term value: 442 mg/m<sup>3</sup>, 100 ppm  
 Skin

#### 108-65-6 2-methoxy-1-methylethyl acetate

IOELV Short-term value: 550 mg/m<sup>3</sup>, 100 ppm  
 Long-term value: 275 mg/m<sup>3</sup>, 50 ppm  
 Skin

- DNELs

#### 1330-20-7 xylene

Dermal	Long-term exposure - systemic effects	180 mg/kg bw/day (worker)
Inhalative	Acute - short-term exposure - systemic effects	289 mg/m <sup>3</sup> (worker)
	Acute - short-term exposure - local effects	289 mg/m <sup>3</sup> (worker)
	Long-term exposure - systemic effects	77 mg/m <sup>3</sup> (worker)

#### 64742-95-6 Hydrocarbons, C9, aromatics

Dermal	Long-term exposure - systemic effects	25 mg/kg bw/day (worker)
Inhalative	Long-term exposure - systemic effects	150 mg/m <sup>3</sup> (worker)

#### 100-41-4 ethylbenzene

Dermal	Acute - short-term exposure - local effects	293 mg/kg bw/day (worker)
	Long-term exposure - systemic effects	180 mg/kg bw/day (worker)
Inhalative	Long-term exposure - systemic effects	77 mg/m <sup>3</sup> (worker)

#### 108-65-6 2-methoxy-1-methylethyl acetate

Dermal	Long-term exposure - systemic effects	153,5 mg/kg bw/day (worker)
Inhalative	Long-term exposure - systemic effects	275 mg/m <sup>3</sup> (worker)

#### 78-83-1 butanol

Inhalative	Long-term exposure - local effects	310 mg/m <sup>3</sup> (worker)
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- PNECs

#### 1330-20-7 xylene

PNEC 6,58 mg/l (STP)  
 0,237 mg/l (aqua, freshwater)  
 0,327 mg/l (aqua, intermittent releases)

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0,327 mg/l (aqua, marine water)

**100-41-4 ethylbenzene**

PNEC 13,7 mg/kg (sediment freshwater)

2,68 mg/kg (soil)

PNEC 9,6 mg/l (STP)

0,1 mg/l (aqua, freshwater)

0,1 mg/l (aqua, intermittent releases)

0,01 mg/l (aqua, marine water)

**108-65-6 2-methoxy-1-methylethyl acetate**

PNEC 0,329 mg/kg (sediment marine water)

3,29 mg/kg (sediment freshwater)

0,29 mg/kg (soil)

PNEC 100 mg/l (STP)

6,35 mg/l (aqua, intermittent releases)

0,0635 mg/l (aqua, marine water)

0,635 mg/l (aqua freshwater)

**78-83-1 butanol**

PNEC 0,152 mg/kg (aqua, marine water)

1,52 mg/kg (sediment freshwater)

0,0699 mg/kg (soil)

PNEC 10 mg/l (STP)

0,4 mg/l (aqua, freshwater)

11 mg/l (aqua, intermittent releases)

0,04 mg/l (aqua, marine water)

- Additional information: The lists valid during the making were used as basis.

- 8.2 Exposure controls

- Personal protective equipment:

- General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

- Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Short term filter device:

Filter A.

- Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- Material of gloves

Suitable materials for safety gloves (EN 374):

Fluorocarbon rubber gloves (Viton)

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- Penetration time of glove material

Thickness of the gloves  $\geq 0.7$  mm (xylenes)Value for the permeation  $\geq 480$  min (xylenes)

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The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eye protection:



Tightly sealed goggles

- Body protection: Solvent resistant protective clothing

### SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties

- General Information

- Appearance:

Form:	Liquid
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Colour:	Grey
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- Odour: Characteristic

- Odour threshold: Not determined.

- pH-value: Not determined.

- Change in condition

Melting point/Melting range:	Undetermined.
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Boiling point/Boiling range:	136 °C
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- Flash point: 22 °C

- Flammability (solid, gaseous): Not applicable.

- Ignition temperature: 500 °C

- Decomposition temperature: Not determined.

- Self-igniting: Product is not selfigniting.

- Danger of explosion: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

- Explosion limits:

Lower:	1,1 Vol %
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Upper:	7,0 Vol %
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- Vapour pressure at 20 °C: 6,7 hPa

- Density at 20 °C: 1,16 g/cm<sup>3</sup>

- Relative density: Not determined.

- Vapour density: Not determined.

- Evaporation rate: Not determined.

- Solubility in / Miscibility with water:

Slightly soluble.

- Partition coefficient (n-octanol/water): Not determined.

- Viscosity:

Dynamic at 20 °C:	14000 mPas
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Kinematic:	Not determined.
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- Solvent content:

Organic solvents:	34,4 %
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VOC (EC)	34,40 %
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Solids content:	65,6 %
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- 9.2 Other information: No further relevant information available.

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### SECTION 10: Stability and reactivity

- 10.1 Reactivity No further relevant information available.
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions Reacts with strong oxidizing agents.
- 10.4 Conditions to avoid High temperatures.
- 10.5 Incompatible materials: Oxidizing agents.
- 10.6 Hazardous decomposition products: No dangerous decomposition products known.

### SECTION 11: Toxicological information

- 11.1 Information on toxicological effects
- Acute toxicity Based on available data, the classification criteria are not met.
- LD/LC50 values relevant for classification:

#### 1330-20-7 xylene

Oral LD50 3523 mg/kg (rat)  
 Dermal LD50 12126 mg/kg bw (rabbit)  
 Inhalative LC50/4h 27124 mg/m<sup>3</sup> (rat)

#### 25036-25-3 Bisphenol A-Epichlorohydrin resin

Oral LD50 >2000 mg/kg (rat)  
 Dermal LD50 >2000 mg/kg (rat)

#### 64742-95-6 Hydrocarbons, C9, aromatics

Oral LD50 3592 mg/kg (rat)  
 Dermal LD50 >3160 ml/kg (rabbit)  
 Inhalative LC50/4h >6193 ppm (rat)

#### 100-41-4 ethylbenzene

Oral LD50 3500 mg/kg (rat)  
 Dermal LD50 17800 mg/kg (rabbit)

#### 108-65-6 2-methoxy-1-methylethyl acetate

Oral LD50 > 5000 mg/kg (rat)  
 Dermal LD50 > 5000 mg/kg (rat)

#### 78-83-1 butanol

Oral LD50 3350 mg/kg (rat)  
 Dermal LD50 >2000 mg/kg (rabbit)  
 Inhalative LC50/4h >8000 ppm (rat)

- Primary irritant effect:
- Skin corrosion/irritation  
Causes skin irritation.
- Serious eye damage/irritation  
Causes serious eye irritation.
- Respiratory or skin sensitisation  
May cause an allergic skin reaction.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
- 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.
- STOT-single exposure  
May cause respiratory irritation.
- STOT-repeated exposure  
May cause damage to organs through prolonged or repeated exposure.
- Aspiration hazard Based on available data, the classification criteria are not met.

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### \* SECTION 12: Ecological information

- 12.1 Toxicity
- Aquatic toxicity:
  - 1330-20-7 xylene**
  - IC50/72h 2,2 mg/l (algae)
  - EC50/48h 1 mg/l (daphnia magna)
  - LC50/96h 2,6 mg/l (oncorhynchus mykiss)
  - 100-41-4 ethylbenzene**
  - EC50/24h >100 mg/l (daphnia magna)
  - 108-65-6 2-methoxy-1-methylethyl acetate**
  - EC50/48h 408-500 mg/l (daphnia magna)
  - LC50/96h 100-180 mg/l (oncorhynchus mykiss)
  - 78-83-1 butanol**
  - EC50/48h 1100 mg/l (daphnia magna)
  - EC50/72h 1799 mg/l (algae)
  - LC50/96h 1430 mg/l (pimphales promelas)
- 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential

- 1330-20-7 xylene**
- LogPow 3,15 (/)
- 12.4 Mobility in soil No further relevant information available.
- Ecotoxicological effects:
  - Remark: Harmful to fish
  - Additional ecological information:
  - General notes:
    - Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
    - Do not allow product to reach ground water, water course or sewage system.
    - Danger to drinking water if even small quantities leak into the ground.
    - Harmful to aquatic organisms
- 12.5 Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.
- 12.6 Other adverse effects No further relevant information available.

### SECTION 13: Disposal considerations

- 13.1 Waste treatment methods
- Recommendation
  - Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- European waste catalogue
  - 08 01 11\* waste paint and varnish containing organic solvents or other hazardous substances
- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

### \* SECTION 14: Transport information

- 14.1 UN-Number
- ADR,ADN, IMDG, IATA UN1263
- 14.2 UN proper shipping name
- ADR/ADN 1263 PAINT
- IMDG PAINT
- IATA Paint

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- 14.3 Transport hazard class(es)
- ADR,ADN, IMDG, IATA



- Class 3 Flammable liquids.
- Label 3
- 14.4 Packing group III
- ADR,ADN, IMDG, IATA III
- 14.5 Environmental hazards: No
- Marine pollutant: No
- 14.6 Special precautions for user Warning: Flammable liquids.
- Danger code (Kemler): 33
- EMS Number: F-E,S-E
- Stowage Category A
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.

· Transport/Additional information:

- ADR/ADN
- Limited quantities (LQ) 5L
- Excepted quantities (EQ) Code: E1  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 1000 ml
- Transport category 3
- Tunnel restriction code D/E

- IMDG
- Limited quantities (LQ) 5L
- Excepted quantities (EQ) Code: E1  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 1000 ml
- UN "Model Regulation": UN 1263 PAINT, 3, III

### \* SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- Seveso category P5c FLAMMABLE LIQUIDS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 5.000 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 50.000 t
- National regulations:
- Other regulations, limitations and prohibitive regulations  
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.
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases  
H225 Highly flammable liquid and vapour.  
H226 Flammable liquid and vapour.  
H302 Harmful if swallowed.

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H304 May be fatal if swallowed and enters airways.  
 H312 Harmful in contact with skin.  
 H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H318 Causes serious eye damage.  
 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.  
 H400 Very toxic to aquatic life.  
 H410 Very toxic to aquatic life with long lasting effects.  
 H411 Toxic to aquatic life with long lasting effects.  
 H412 Harmful to aquatic life with long lasting effects.

- Contact: Mr. F. Dammers

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Flam. Liq. 3: Flammable liquids, Hazard Category 3

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

Asp. Tox. 1: Aspiration hazard, Hazard Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

- \* Data compared to the previous version altered.