

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

- 1.1 Product identifier
- Trade name: Epifanes Epoxythinner D-601
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
- Product category
PC35 Washing and cleaning products (including solvent based products)
PC0 Other
- Process category PROC10 Roller application or brushing
- Environmental release category ERC2 Formulation into mixture
- Application of the substance / the mixture
See our technical datasheet for application of this product.
Thinner for Neosil Epoxy primer
- 1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier:
W.Heeren & Zoon bv.
P.O. box 166
1430 AD Aalsmeer
Netherlands
tel.+31-(0)297-360366
fax +31-(0)297-342078
email: r&d@epifanes.nl
- Further information obtainable from: Research & Development.
- 1.4 Emergency telephone number:
W.Heeren & Zoon bv. tel: +31 297 360678, E-mail: rend@epifanes.nl
Office hours: weekdays from 08:00 to 17:00.
The National Poisons Information Service; dial 111
Solely intended to inform professionals in acute poisoning!
Department Research & Development

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.



GHS07

Acute Tox. 4 H332 Harmful if inhaled.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
STOT SE 3 H335 May cause respiratory irritation.

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

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· Hazard pictograms



GHS02 GHS07

· Signal word Danger

· Hazard-determining components of labelling:

4-methylpentan-2-one
xylene

· Hazard statements

H225 Highly flammable liquid and vapour.
H332 Harmful if inhaled.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

· Precautionary statements

P102 Keep out of reach of children.
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.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· 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:

Solvent mixture
Mixture of organic solvents

· Dangerous components:

CAS: 108-10-1 EINECS: 203-550-1 Index number: 606-004-00-4 Reg.nr.: 01-2119473980-30	4-methylpentan-2-one Flam. Liq. 2, H225 Acute Tox. 4, H332; Eye Irrit. 2, H319; STOT SE 3, H335	25-50%
CAS: 1330-20-7 EINECS: 215-535-7 Index number: 601-022-00-9 Reg.nr.: 01-2119488216-32	xylene Flam. Liq. 3, H226 Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	25-50%
CAS: 107-98-2 EINECS: 203-539-1 Index number: 603-064-00-3 Reg.nr.: 01-2119457435-35	1-methoxy-2-propanol Flam. Liq. 3, H226 STOT SE 3, H336	10-25%

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

SECTION 4: First aid measures

- 4.1 Description of first aid measures
- General information:
Take affected persons out into the fresh air.
Do not leave affected persons unattended.
Seek medical treatment.
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. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.
- After skin contact:
Immediately wash with water and soap and rinse thoroughly.
Immediately rinse with water.
- After eye contact:
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing:
Rinse out mouth and then drink plenty of water.
Try not to vomit. Swallow activated carbon and sodium sulphate.
- 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:
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- For safety reasons unsuitable extinguishing agents: Water with full jet
- 5.2 Special hazards arising from the substance or mixture
Formation of toxic gases is possible during heating or in case of fire.
During heating or in case of fire poisonous gases are produced.
- 5.3 Advice for firefighters
- Protective equipment:
Wear fully protective suit.
Mouth respiratory protective device.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures
Keep away from ignition sources.
Ensure adequate ventilation
Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.

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- 6.2 Environmental precautions:
Prevent seepage into sewage system, workpits and cellars.
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
Use only in well ventilated areas.
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.
- 7.2 Conditions for safe storage, including any incompatibilities
- Storage:
Requirements to be met by storerooms and receptacles:
Store only in the original receptacle.
Store in a cool location.
- Information about storage in one common storage facility:
Store away from flammable substances.
- Further information about storage conditions:
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
- 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:

108-10-1 4-methylpentan-2-one

Inhalative	(Tgg)time weighted average 8 hours / Exposure time	104 mg/m ³ (Algemene bevolking/ General population)
	(Tgg)time weighted average 15 min. / Exposure time	208 mg/m ³ (Algemene bevolking/ General population)

1330-20-7 xylene

Inhalative	(Tgg)time weighted average 8 hours / Exposure time	210 mg/m ³ (Algemene bevolking/ General population)
	(Tgg)time weighted average 15 min. / Exposure time	442 mg/m ³ (Algemene bevolking/ General population)

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107-98-2 1-methoxy-2-propanol		
Inhalative	(Tgg)time weighted average 8 hours / Exposure time	375 mg/m ³ (Algemene bevolking/ General population)
	(Tgg)time weighted average 15 min. / Exposure time	563 mg/m ³ (Algemene bevolking/ General population)

108-10-1 4-methylpentan-2-one		
WEL	Short-term value: 416 mg/m ³ , 100 ppm Long-term value: 208 mg/m ³ , 50 ppm Sk, BMGV	

1330-20-7 xylene		
WEL	Short-term value: 441 mg/m ³ , 100 ppm Long-term value: 220 mg/m ³ , 50 ppm Sk; BMGV	

107-98-2 1-methoxy-2-propanol		
WEL	Short-term value: 560 mg/m ³ , 150 ppm Long-term value: 375 mg/m ³ , 100 ppm Sk	

· DNELs

1330-20-7 xylene		
Dermal	Long-term - local effects, worker	180 --- (Werker/Worker)
Inhalative	Acute-local effects, worker	289 mg/m ³ (Werker/Worker)
	Acute - systemic effects, worker	289 mg/m ³ (Werker/Worker)
	Long-term - local effects, worker	77 mg/m ³ (Werker/Worker)

· PNECs

1330-20-7 xylene		
Aquatic compartment - freshwater		0.327 mg/L (not specified)
Aquatic compartment - marine water		0.327 mg/L (not specified)
Aquatic compartment - water, intermittent releases		0.327 mg/L (not specified)
Aquatic compartment - sediment in freshwater		12.46 mg/kg sed dw (not specified)
Aquatic compartment - sediment in marine water		12.46 mg/kg sed dw (not specified)
Terrestrial compartment - soil		2.31 mg/kg dw (not specified)
Sewage treatment plant		6.58 mg/L (not specified)

· Ingredients with biological limit values:

108-10-1 4-methylpentan-2-one		
BMGV	20 µmol/L Medium: urine Sampling time: post shift Parameter: 4-methylpentan-2-one	
1330-20-7 xylene		
BMGV	650 mmol/mol creatinine Medium: urine Sampling time: post shift Parameter: methyl hippuric acid	

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

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- 8.2 Exposure controls
- Personal protective equipment:
- General protective and hygienic measures:
Do not eat, drink, smoke or sniff while working.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- Respiratory protection:
Suitable respiratory protective device recommended.
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.
Filter AX
- Protection of hands:

**Protective gloves**

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

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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

- Material of gloves
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
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- For the permanent contact gloves made of the following materials are suitable:
PVA, fluorinated rubber
Glove thickness > 0.7mm, breakthrough time > 480 min. To EN374
Butyl rubber, glove thickness 0.7 mm, > 480 min breakthrough time / permeation to EN374.
- As protection from splashes gloves made of the following materials are suitable:
Nitrile
Glove thickness > 0.45 mm, breakthrough time > 30 min. to EN374
- Eye protection:

**Tightly sealed goggles**

- Body protection: Use protective suit.

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SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties
- General Information
- Appearance:
 - Form: Fluid
 - Colour: Clear
- Odour: Characteristic
- Odour threshold: Not determined.
- pH-value at 20 °C: n.v.t.
- Change in condition
 - Melting point/freezing point: n.v.t. °C
 - Initial boiling point and boiling range: >125 °C
- Flash point: 16 °C
- Flammability (solid, gas): Not applicable.
- Ignition temperature: 270 °C
- Decomposition temperature: Not determined.
- Auto-ignition temperature: Product is not selfigniting.
- Explosive properties: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
- Explosion limits:
 - Lower: 1.1 Vol %
 - Upper: 20.0 Vol %
- Vapour pressure at 20 °C: 12 hPa
- Density at 20 °C: 0.85 g/cm³
- Relative density: Not determined.
- Vapour density: Not determined.
- Evaporation rate: Not determined.
- Solubility in / Miscibility with water at 20 °C: > 20 g/l
- Partition coefficient: n-octanol/water: Not determined.
- Viscosity:
 - Dynamic: Not determined.
 - Kinematic at 20 °C: 0.9 mm²/s
- Solvent content:
 - Organic solvents: 100.0 %
 - VOC content: 100.0 %
 - VOC content: 850.0 g/l / 7.09 lb/gl
- 9.2 Other information: No further relevant information available.

SECTION 10: Stability and reactivity

- 10.1 Reactivity No further relevant information available.

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- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided:
No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions No dangerous reactions known.
- 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products:
Flammable gases/vapours
Aldehyde
Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

- 11.1 Information on toxicological effects
- Acute toxicity
Harmful if inhaled.

- LD/LC50 values relevant for classification:

108-10-1 4-methylpentan-2-one

Oral	LD50	2080 mg/kg bw (rat)
Dermal	LD50	16000 mg/kg bw (rab)
Inhalative	LC50/4 h	8.3-16.6 mg/l (rat)

1330-20-7 xylene

Oral	LD50	4300 mg/kg bw (rat)
Dermal	LD50	2000 mg/kg bw (rabbit)

107-98-2 1-methoxy-2-propanol

Oral	LD50	5660 mg/kg bw (rat)
Dermal	LD50	13000 mg/kg bw (rabbit)
Inhalative	LC50/4 h	6 mg/l (rat)

- Primary irritant effect:
- Skin corrosion/irritation
Causes skin irritation.
- Serious eye damage/irritation
Causes serious eye irritation.
- Respiratory or skin sensitisation
Based on available data, the classification criteria are not met.
- 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
Based on available data, the classification criteria are not met.
- 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

EC50 1 mg/l (daphnia magna) (48 uur/hour)

LC50 13.5-2.6 mg/l (Fish Acute Toxicity Study) (96 uur/hour)

· 12.2 Persistence and degradability No further relevant information available.

· Other information: The product is biodegradable.

· 12.3 Bioaccumulative potential

Non significant accumulation in organisms

1330-20-7 xylene

Log Kow 3 (not specified)

· 12.4 Mobility in soil No further relevant information available.

· 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.

· 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 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
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08 01 00	wastes from MFSU and removal of paint and varnish
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08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances
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· Uncleaned packaging:

· Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN-Number

· ADR, IMDG, IATA UN1263

· 14.2 UN proper shipping name

· ADR 1263 PAINT RELATED MATERIAL (vapour pressure at 50 °C not more than 110 kPa)
PAINT RELATED MATERIAL

· IMDG, IATA

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· 14.3 Transport hazard class(es)

· ADR



· Class 3 (F1) Flammable liquids.
· Label 3

· IMDG, IATA



· Class 3 Flammable liquids.
· Label 3

· 14.4 Packing group

· ADR, IMDG, IATA II

· 14.5 Environmental hazards:

· Marine pollutant: No

· 14.6 Special precautions for user

Warning: Flammable liquids.

· Danger code (Kemler): 33

· EMS Number: F-E, S-E

· Stowage Category B

· 14.7 Transport in bulk according to

Annex II of Marpol and the IBC Code Not applicable.

· Transport/Additional information:

· ADR

· Limited quantities (LQ) 5L
· Excepted quantities (EQ) Code: E2
Maximum net quantity per inner packaging:
30 ml
Maximum net quantity per outer packaging:
500 ml

· Transport category 2

· Tunnel restriction code D/E

· IMDG

· Limited quantities (LQ) 1L
· Excepted quantities (EQ) Code: E2
Maximum net quantity per inner packaging:
30 ml
Maximum net quantity per outer packaging:
500 ml

· UN "Model Regulation":

UN 1263 PAINT RELATED MATERIAL (VAPOUR
PRESSURE AT 50 °C NOT MORE THAN 110 KPA),
3, II

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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
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- National regulations:
- Technical instructions (air):

Class	Share in %
NK	50-100
- Waterhazard class: Water hazard class 2 (Self-assessment): hazardous for water.
- 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.
 - H312 Harmful in contact with skin.
 - H315 Causes skin irritation.
 - H319 Causes serious eye irritation.
 - H332 Harmful if inhaled.
 - H335 May cause respiratory irritation.
 - H336 May cause drowsiness or dizziness.
- Abbreviations and acronyms:
 - RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 - ICAO: International Civil Aviation Organisation
 - 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 - Category 2
 - Flam. Liq. 3: Flammable liquids - Category 3
 - Acute Tox. 4: Acute toxicity - Category 4
 - Skin Irrit. 2: Skin corrosion/irritation - Category 2

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Eye Irrit. 2: Serious eye damage/eye irritation - Category 2

STOT SE 3: Specific target organ toxicity (single exposure) - Category 3

· * Data compared to the previous version altered.

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