

Material Safety Data Sheet
According to 91/155 EEC

Printing date 19.03.2004

Reviewed on 22.01.2003





1 Identification of the substance/preparation and of the company/undertaking

- Product details
- Trade name: Epifanes Thinner D-601
- Application of the substance / the preparation
Thinner, Diluent
Thinner for thinning Epifanes epoxy based products
- Manufacturer/Supplier:
W.HEEREN & ZOON BV
Postbus 166
1430 AD Aalsmeer
tel. +31-297-360366
fax. +31-297-342078
- Further information obtainable from: See under Manufacturer/supplier
- Information in case of emergency: Department Research & Development

2 Composition/information on ingredients

- Chemical characterization
- Description:
Solvent mixture
Mixture of organic solvents

• Dangerous components:

CAS: 107-98-2 EINECS: 203-539-1	1-methoxy-2-propanol R 10	19.9%
CAS: 1589-47-5 EINECS: 216-455-5	2-methoxypropanol  T; R 61-10-37/38-41	0.1%
CAS: 108-10-1 EINECS: 203-550-1	4-methylpentan-2-one  Xn,  F; R 11-20-36/37-66	40.0%
CAS: 1330-20-7 EINECS: 215-535-7	xylene  Xn; R 10-20/21-38	40.0%

3 Hazards identification

• Hazard description:



Xn Harmful
F Highly flammable

- Information concerning particular hazards for human and environment:
At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.
The product is skin-resorbing.
R 10 Flammable.
R 20/21 Harmful by inhalation and in contact with skin.
R 65 Harmful: may cause lung damage if swallowed.

4 First-aid measures

- General information:
Immediately remove any clothing soiled by the product.
Take affected persons out into the fresh air.
Do not leave affected persons unattended.
Seek medical treatment.

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- After inhalation:
Supply fresh air; consult doctor in case of complaints.
- After skin contact:
Immediately wash with water and soap and rinse thoroughly.
- After eye contact:
Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing:
Rinse out mouth and then drink plenty of water.
Call for a doctor immediately.
Try not to vomit. Swallow activated carbon and sodium sulphate.

5 Fire-fighting measures

- Suitable extinguishing agents:
CO₂, sand, extinguishing powder. Do not use water.
- For safety reasons unsuitable extinguishing agents:
Water
Water with full jet
- Special hazards caused by the substance, its products of combustion or resulting gases:
Formation of toxic gases is possible during heating or in case of fire.
- Protective equipment: Wear fully protective suit.

6 Accidental release measures

- Person-related safety precautions:
Keep away from ignition sources.
Ensure adequate ventilation
- Measures for environmental protection:
Do not allow to enter sewers/ surface or ground water.
- Measures for cleaning/collecting:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents

7 Handling and storage

- Handling:
Information for safe handling: Use only in well ventilated areas.
- Information about fire - and explosion protection:
Protect from heat.
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- Storage:
Requirements to be met by storerooms and receptacles:
Store only in the original receptacle.
- Information about storage in one common storage facility:
Store away from flammable substances.
- Further information about storage conditions:
Protect from heat and direct sunlight.

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8 Exposure controls/personal protection

- Additional information about design of technical facilities:
No further data; see item 7.

- Ingredients with limit values that require monitoring at the

~~W084104~~ 1-methylpentan-2-one

OES	Short-term value: 416 mg/m ³ , 100 ppm Long-term value: 208 mg/m ³ , 50 ppm IOELV, Sk,
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1330-20-7 xylene

OES	Short-term value: 441 mg/m ³ , 100 ppm Long-term value: 220 mg/m ³ , 50 ppm Sk
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107-98-2 1-methoxy-2-propanol

OES	Short-term value: 560 mg/m ³ , 150 ppm Long-term value: 375 mg/m ³ , 100 ppm IOELV, Sk
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- Additional information:
The lists valid during the making were used as basis.
- Personal protective equipment:
- General protective and hygienic measures:
Do not eat, drink, smoke or sniff while working.
Wash hands before breaks and at the end of work.
- Respiratory protection:
Suitable respiratory protective device recommended.
- 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.
- Penetration time of glove material
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- Eye protection: Safety glasses
- Body protection: Use protective suit.

9 Physical and chemical properties

- General Information

Form:	Fluid
Colour:	Clear
Odour:	Specific type

- Change in condition
Melting point/Melting range: n.v.t. °C

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Boiling point/Boiling range:	> 125°C
• Flash point:	24°C
• Flammability (solid, gaseous):	Flammable.
• Ignition temperature:	> 230°C
• Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
• Explosion limits:	
Lower:	1.3 Vol %
Upper:	7.0 Vol %
• Vapour pressure at 20°C:	ca. 2 hPa
• Density at 20°C:	0.85 g/cm ³
• Solubility in / Miscibility with water at 20°C:	> 20 g/l
• pH-value at 20°C:	n.v.t.
• Viscosity:	
Kinematic at 20°C:	< 0.9 mPa.s (DIN 53211/4)
• Solvent content:	
Organic solvents:	100 %

10 Stability and reactivity

- Thermal decomposition / conditions to be avoided:
No decomposition if used according to specifications.
- Dangerous reactions No dangerous reactions known.
- Dangerous decomposition products:
Flammable gases/vapours
Aldehyde
Carbon monoxide and carbon dioxide

11 Toxicological information

- Acute toxicity:

- LD/LC50 values relevant for classification:

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

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

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

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

1330-20-7 xylene

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

- Primary irritant effect:
- on the skin: Irritant to skin and mucous membranes.

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- on the eye: Strong caustic effect.

12 Ecological information

- Information about elimination (persistence and degradability):
- Other information: The product is biodegradable.
- Behaviour in environmental systems:
- Mobility and bioaccumulation potential:
Not worth-mentioning accumulating in organisms
- General notes:
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow product to reach ground water, water course or sewage system.

13 Disposal considerations

- Product:
- Recommendation
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packaging:
- Recommendation:
Disposal must be made according to official regulations.

14 Transport information

- Land transport ADR/RID (cross-border)



- ADR/RID class: 3 F1 Flammable liquids.
- Danger code (Kemler): 30
- UN-Number: 1993
- Packaging group: III
- Hazard label: 3
- Description of goods: 1993 FLAMMABLE LIQUID, N.O.S., solution (not viscous)

- Maritime transport IMDG:



- IMDG Class: 3
- UN Number: 1993
- Label: 3
- Packaging group: III
- EMS Number: F-E,S-E
- Marine pollutant: No

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- Proper shipping name: BRANDBARE VLOEISTOF, N.E.G., Oplosmiddel niet visceus

- Air transport ICAO-TI and IATA-DGR:



- ICAO/IATA Class: 3
- UN/ID Number: 1268
- Label: 3
- Packaging group: III
- Proper shipping name: BRANDBARE VLOEISTOF, N.E.G., Oplosmiddel niet visceus

15 Regulatory information

- Labelling according to EU guidelines:
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.
- Code letter and hazard designation of product:
Xn Harmful
F Highly flammable
- Risk phrases:
10 Flammable.
20/21 Harmful by inhalation and in contact with skin.
65 Harmful: may cause lung damage if swallowed.
- Safety phrases:
2 Keep out of the reach of children.
9 Keep container in a well-ventilated place.
16 Keep away from sources of ignition - No smoking.
23 Do not breathe fumes/aerosol.
29 Do not empty into drains.
33 Take precautionary measures against static discharges.
43 In case of fire, use sand, carbon dioxide or powdered extinguishing agent. Never use water.
51 Use only in well-ventilated areas.
62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.
- National regulations:
- Technical instructions (air):

Class	Share in %
II	40.0
III	59.9
NK	0.1
- Waterhazard class:
Water hazard class 1 (Self-assessment): slightly hazardous for water.

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.

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• Relevant R-phrases

- 10 Flammable.
- 11 Highly flammable.
- 20 Harmful by inhalation.
- 20/21 Harmful by inhalation and in contact with skin.
- 36/37 Irritating to eyes and respiratory system.
- 37/38 Irritating to respiratory system and skin.
- 38 Irritating to skin.
- 41 Risk of serious damage to eyes.
- 61 May cause harm to the unborn child.
- 66 Repeated exposure may cause skin dryness or cracking.

- Department issuing MSDS: Department Research & Development
- Contact: T.J.H.M. van Steenes

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