



















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

- Product identifier
- Trade name: Epifanes Poly-urethane Spraythinner
- 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
- Information department: environment protection department
- Emergency telephone number:
Heeren & Zoon b.v. 0297360366
See section Manufacturer/supplier

2 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Solvent mixture

· Dangerous components:

78-93-3	butanone  Xi R36  F R11 R66-67 <hr/>  H225  H319; H336	25-50%
108-65-6	2-methoxy-1-methylethyl acetate  Xi R36 R10 <hr/>  H226  H319	25-50%
1330-20-7	xylene  Xn R20/21  Xi R38 R10 <hr/>  H226  H312; H332; H315	2.5-10%
123-86-4	n-butyl acetate R10-66-67 <hr/>  H226  H336	2.5-10%
70657-70-4	2-methoxypropyl acetate  T Repr. Cat. 2 R61  Xi R37 R10 <hr/>  H226  H360  H335	≤ 2.5%

· Additional information:

For the wording of the listed risk phrases refer to section 16.

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3 Hazards identification

- Classification of the substance or mixture



GHS02 Flame

H225 Highly flammable liquid and vapour.



GHS07

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H333 May be harmful if inhaled.

- Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Xi; Irritant

R36: Irritating to eyes.



F; Highly flammable

R11: Highly flammable.

R67: Vapours may cause drowsiness and dizziness.

- Information concerning particular hazards for human and environment:
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
Has a narcotizing effect.
- Classification system:
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- Label elements

- Labelling according to EU guidelines:

The product has been classified and marked in accordance with directives on hazardous materials.

- Code letter and hazard designation of product:

Xi Irritant

F Highly flammable

- Risk phrases:

11 Highly flammable.

36 Irritating to eyes.

67 Vapours may cause drowsiness and dizziness.

- Safety phrases:

2 Keep out of the reach of children.

7/9 Keep container tightly closed and in a well-ventilated place.

16 Keep away from sources of ignition - No smoking.

23 Do not breathe fumes/aerosol.

24/25 Avoid contact with skin and eyes.

46 If swallowed, seek medical advice immediately and show this container or label.

51 Use only in well-ventilated areas.

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56 Dispose of this material and its container to hazardous or special waste collection point.

- Classification system:
- NFPA ratings (scale 0 - 4)

Health = 1
Fire = 3
Reactivity = 0

- HMIS-ratings (scale 0 - 4)

Health = 1
Fire = 3
Reactivity = 0**4 First aid measures**

- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact:
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing: If symptoms persist consult doctor.

5 Firefighting measures

- Suitable extinguishing agents:
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- For safety reasons unsuitable extinguishing agents: Water with full jet
- Special hazards arising from the substance or mixture
No further relevant information available.
- Protective equipment:
Wear fully protective suit.
Do not inhale explosion gases or combustion gases.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
Wear protective clothing.
Ensure adequate ventilation
Wear protective equipment. Keep unprotected persons away.
- Environmental precautions:
Prevent seepage into sewage system, workpits and cellars.
Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
- Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

7 Handling and storage

- Handling:
 - Precautions for safe handling
Work only in fume cabinet.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- Information about protection against explosions and fires:
 - 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.
Store in a cool location.
 - Information about storage in one common storage facility:
Store away from water.
 - Further information about storage conditions:
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

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

- Components with limit values that require monitoring at the workplace:

78-93-3 butanone

PEL	590 mg/m ³ , 200 ppm
REL	Short-term value: 885 mg/m ³ , 300 ppm Long-term value: 590 mg/m ³ , 200 ppm
TLV	Short-term value: 885 mg/m ³ , 300 ppm Long-term value: 590 mg/m ³ , 200 ppm BEI

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

WEEL	50 ppm
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1330-20-7 xylene

PEL	435 mg/m ³ , 100 ppm
REL	Short-term value: 655 mg/m ³ , 150 ppm Long-term value: 435 mg/m ³ , 100 ppm
TLV	Short-term value: 651 mg/m ³ , 150 ppm Long-term value: 434 mg/m ³ , 100 ppm BEI

123-86-4 n-butyl acetate

PEL	710 mg/m ³ , 150 ppm
REL	Short-term value: 950 mg/m ³ , 200 ppm Long-term value: 710 mg/m ³ , 150 ppm
TLV	Short-term value: 950 mg/m ³ , 200 ppm Long-term value: 713 mg/m ³ , 150 ppm

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

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- 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.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.
- Breathing equipment:
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 respiratory protective device that is independent of circulating air.
- 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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

- General Information
- Appearance:

Form:	Fluid
Color:	According to product specification
- Odor: Characteristic
- Odour threshold: Not determined.
- pH-value: Not determined.
- Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	79°C (174 °F)
- Flash point: -4°C (25 °F)

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· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	315°C (599 °F)
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits:	
Lower:	1.1 Vol %
Upper:	11.5 Vol %
· Vapor pressure at 20°C (68 °F):	105 hPa (79 mm Hg)
· Density at 20°C (68 °F):	0.88333 g/cm ³ (7.371 lbs/gal)
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
· Segregation coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic at 20°C (68 °F):	11 s (DIN 53211/4)
· Solvent content:	
Organic solvents:	99.8 %
VOC content:	99.8 %
	VOC content: 881.9 g/l / 7.36 lb/gl
· Other information	No further relevant information available.

10 Stability and reactivity

- Thermal decomposition / conditions to be avoided:
No decomposition if used according to specifications.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Acute toxicity:

- LD/LC50 values that are relevant for classification:

1330-20-7 xylene

Oral	LD50	4300 mg/kg (rat)
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Dermal	LD50	2000 mg/kg (rabbit)
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- Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: Irritating effect.
- Sensitization: No sensitizing effects known.

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- Additional toxicological information:
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

12 Ecological information

- Acquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- Behavior in environmental systems:
- Bioaccumulative potential No further relevant information available.
- Additional ecological information:
- General notes:
Water hazard class 2 (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.

13 Disposal considerations

- Waste treatment methods
- Recommendation:
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
DOT, ADR, IMDG, IATA UN1263
- UN proper shipping name
DOT, IMDG CONSUMER COMMODITY, ORM-D
PAINT
- ADR 1263 PAINT
- IATA PAINT

- Transport hazard class(es)
DOT, IMDG, IATA



- Class 3 Flammable liquids.
- Label 3

- ADR



- Class 3 (F1) Flammable liquids

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· Label	3
· Packing group	
· DOT, ADR, IMDG, IATA	II
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Warning: Flammable liquids
· Danger code (Kemler):	33
· EMS Number:	F-E, S-E
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Remarks:	CERCLA/DOT RQ: 617gal./4786 lbs.
· IMDG	
· Remarks:	System Reference Code:5
· UN "Model Regulation":	UN1263, PAINT, 3, II

15 Regulatory information

· Sara

· Section 355 (extremely hazardous substances):

None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):

78-93-3 butanone

1330-20-7 xylene

· TSCA (Toxic Substances Control Act):

78-93-3 butanone

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

1330-20-7 xylene

123-86-4 n-butyl acetate

· Proposition 65

· Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Cancerogenity categories

· EPA (Environmental Protection Agency)

78-93-3 butanone

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1330-20-7 xylene

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· IARC (International Agency for Research on Cancer)		
1330-20-7	xylene	3
· NTP (National Toxicology Program)		
None of the ingredients is listed.		
· TLV (Threshold Limit Value established by ACGIH)		
1330-20-7	xylene	A4
· MAK (German Maximum Workplace Concentration)		
None of the ingredients is listed.		
· NIOSH-Ca (National Institute for Occupational Safety and Health)		
None of the ingredients is listed.		
· OSHA-Ca (Occupational Safety & Health Administration)		
None of the ingredients is listed.		

· National regulations:

· Technical instructions (air):

Class	Share in %
NK	50-100

· Water hazard class:

Water hazard class 2 (Self-assessment): 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.

· 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)
- RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organization
- ACGIH: American Conference of Governmental Industrial Hygienists
- NFPA: National Fire Protection Association (USA)
- HMIS: Hazardous Materials Identification System (USA)
- VOC: Volatile Organic Compounds (USA, EU)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent

· * Data compared to the previous version altered.