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1 Identification

- · Product identifier
- · Trade name: Epifanes Undercoat/Epigrond
- · Relevant identified uses of the substance or mixture and uses advised against
- · Product category PC9a Coatings and paints, thinners, paint removers
- · Process category PROC10 Roller application or brushing
- · Environmental release category

ERC10b Wide dispersive outdoor use of long-life articles and materials with high or intended release (including abrasive processing)

ERC2 Formulation of preparations

· Application of the substance / the mixture

See our technical datasheet for application of this product.

- · 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:

Emergency Phone Number (24 hours) CHEMTREC (800-424-9300)

Outside US: 703-527-3887

2 Hazard(s) identification

· Classification of the substance or mixture



GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

- · Classification according to Directive 67/548/EEC or Directive 1999/45/EC
 - R10-66: Flammable. Repeated exposure may cause skin dryness or cracking.
- Information concerning particular hazards for human and environment:
 The product has to be labelled due to the calculation procedure of the "General

The product has to be labelled due to the calculation procedure of the "Genera Classification guideline for preparations of the EU" in the latest valid version.

At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.

Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

(Contd. on page 2)



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Trade name: Epifanes Undercoat/Epigrond

(Contd. of page 1)

- · Label elements
- · GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms







GHS02

S02 GHS

GHS08

- · Signal word Warning
- · Hazard-determining components of labeling:

titanium dioxide

Talc (Mg3H2(SiO3)4)

2-butanone oxime

· Hazard statements

H226 Flammable liquid and vapour.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

· Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No

smoking.

P260 Do not breathe dust/fume/gas/mist/vapors/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. P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all

contaminated clothing. Rinse skin with water/shower.

P501 Dispose of contents/container in accordance with local/regional/

national/international regulations.

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



Health = 0
Fire = 2
Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = 0
Fire = 2
Reactivity = 0

- · Other hazards
- Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · Description:

Resin mixture

Solvent mixture with pigment additives

(Contd. on page 3)



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Trade name: Epifanes Undercoat/Epigrond

	(Conta.	of page 2
Dangerous components:		
CAS: 64742-48-9 EINECS: 265-150-3 Reg.nr.: 01-2119463258-33	Naphtha (petroleum), hydrotreated heavy (Note-p) Xn R65 R10-66	10-25%
	♠ Flam. Liq. 3, H226♠ Asp. Tox. 1, H304	_
CAS: 13463-67-7	titanium dioxide	10-25%
EINECS: 236-675-5	& Carc. 2, H351	-
CAS: 14807-96-6	Talc (Mg3H2(SiO3)4)	2.5-10%
EINECS: 238-877-9	& Carc. 2, H351	-
CAS: 546-93-0 EINECS: 208-915-9 Reg.nr.: 01-2119523999-20	Magnesite	2.5-10%
CAS: 64742-47-8 EINECS: 265-149-8 Index number: 649-422-00-2 Reg.nr.: 01-2119484819-18	Distillates (petroleum), hydrotreated light Xn R65 Flam. Liq. 3, H226 Asp. Tox. 1, H304	2.5-10%
CAS: 96-29-7 EINECS: 202-496-6 Index number: 616-014-00-0 Reg.nr.: 01-2119539477-28	2-butanone oxime Xn R21-40 Xi R41-43 Carc. Cat. 3 Carc. 2, H351 Eye Dam. 1, H318 Acute Tox. 4, H312; Skin Sens. 1, H317 Flam. Liq. 4, H227	≤0.5%

Additional information:

Note P: The substance does not have to be classified as a carcinogen or mutagen as can be shown that the substance contains less than 0.1% (w / w) benzene (EINECS No 200-753-7.). This note applies only to certain complex oil-derived substances in Part 3.

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

4 First-aid measures

- · Description of first aid measures
- \cdot 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.
- · After swallowing: Seek immediate medical advice.
- · Information for doctor:
- Most important symptoms and effects, both acute and delayed
 No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed No further relevant information available.

- US



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(Contd. of page 3)

5 Fire-fighting measures

- · Extinguishing media
- · 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
- \cdot Special hazards arising from the substance or mixture

No further relevant information available.

- · Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

 \cdot Personal precautions, protective equipment and emergency procedures Wear protective clothing.

Wear protective equipment. Keep unprotected persons away.

· Environmental precautions:

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.

See Section 13 for disposal information.

7 Handling and storage

- · Handling:
- · Precautions for safe handling

Keep away from heat and direct sunlight.

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.

- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles:

Store only in the original receptacle.

- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed.
- · 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.

(Contd. on page 5)



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· Control parameters

Comp	onents	with limit	values that	t require	monite	oring at	the wor	kplace:
1480	7-96-6	Talc (Mg3H2	2(SiO3)4)					
Inha	lative	(Tgg)time	weighted a	verage 8	hours	/ Exposur	e time	0.25 mg/m ³ (Algemene bevolking/ General population)
546-	93-0 M a	gnesite						
Inha	lative	(Tgg)time	weighted a	verage 8	hours	/ Exposur	e time	10 mg/m³ (general population)
546-	93-0 Ma	gnesite						
PEL	_		15* 5** mg, spirable fra					
REL			10* 5** mg, spirable fra					
TLV	TLV wi	thdrawn						

· Additional information:

The lists that were valid during the creation were used as basis.

- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

· Breathing equipment:

Not necessarily with good ventilation, however, use a filter AX when ventilation is inadequate!

· 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.
- · For the permanent contact gloves made of the following materials are suitable: nitrile rubber;

recommended glove thickness> 0.45 mm. permeability / permeation time:> 480 min. according to EN 374.

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 \cdot As protection from splashes gloves made of the following materials are suitable:

chloropene; glove thickness> 0.7mm, breakthrough time> 60min. according to EN 374.

nitrile rubber; glove thickness> 0.3 mm, breakthrough time> 60 min.volgens EN 374.

· Eye protection:



Viscosity: Dynamic:

Tightly sealed goggles

· Body protection: Use protective suit.

9 Physical and chemical properties

9 Physical and chemical properties	
 Information on basic physical and General Information Appearance: 	chemical properties
Form:	Fluid
Color:	According to product specification
· Odor:	Characteristic
· Odour threshold:	Not determined.
· pH-value:	Not determined.
 Change in condition Melting point/Melting range: Boiling point/Boiling range: 	Undetermined. > 100 °C (> 212 °F)
· Flash point:	> 42 °C (> 108 °F)
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	240 °C (464 °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:	0.6 Vol %
Upper:	7.0 Vol %
· Vapor pressure at 20 °C (68 °F):	1 hPa (1 mm Hg)
· Density at 20 °C (68 °F):	1.45 g/cm ³ (12.1 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.
 Partition coefficient (n-octanol/ water): 	Not determined.

Not determined.

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Kinematic at 20 °C (68 °F): 35 s (ISO 6 mm)

Solvent content:
Organic solvents: 22.8 %
VOC content: 22.8 %
VOC content: 330.8 g/l / 2.76 lb/gl

Solids content: 73.1 %
Other information No further relevant information available.

10 Stability and reactivity

- · Reactivity
- · Chemical stability
- \cdot Thermal decomposition / conditions to be avoided:
 - No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:

· LD/LC50 va	· LD/LC50 values that are relevant for classification:				
64742-48-9	64742-48-9 Naphtha (petroleum), hydrotreated heavy (Note-p)				
Oral	LD50	>5000 mg/kg bw (rat)			
Dermal	LD50	>5000 mg/kg bw (rabbit) ((24h))			
Inhalative	LC50	>5000 mg/m ³ (vapour) (rat) ((8h))			
13463-67-7	titanium d	ioxide			
Oral	LD50	>20000 mg/kg bw (rat)			
Dermal	LD50	>10000 mg/kg bw (rabbit)			
Inhalative	LC50/4 h	>6.82 mg/l (rat)			
96-29-7 2-	outanone ox	ime			
Oral	LD50	3700 mg/kg bw (rat)			
Dermal	LD50	200-2000 mg/kg bw (rat)			
Inhalative	LC50/4 h	20 mg/l (rat)			
Primary irritant effect:					

- Primary irritant effect:
- \cdot on the skin: No irritant effect.
- $\boldsymbol{\cdot}$ on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:
- · Carcinogenic categories

	· IARC (Inter	national Agency for Research on Cancer)	
	13463-67-7	titanium dioxide	2B
	14807-96-6	Talc (Mg3H2(SiO3)4)	2B
	7631-86-9	silicon dioxide, chemically prepared	3
	136-52-7	cobalt bis(2-ethylhexanoate)	2B
_			

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	(Contd. of pa	.ge 7)
14808-60-7 Quartz (SiO2)		1
· NTP (National Toxicology Program)		
14808-60-7 Quartz (SiO2)		K
· OSHA-Ca (Occupational Safety & Health Administration)		
None of the ingredients is listed.		

12 Ecological information

· Toxicity

 Aquatic toxicity 	':
64742-48-9 Napht	ha (petroleum), hydrotreated heavy (Note-p)
EL50 (48h)	>1000 mg/l ((Daphnia magna-OECD 202))
EbL50 (72h)	>1000 mg/l (Pseudokirchneriella subcapitata-OECD 201)
ErL (72h)	>1000 mg/l (Pseudokirchneriella subcapitata-OECD 201)
LL50 (96h)	>1000 mg/l ((Onorhynchus mykiss OECD 203))
NOELR (72h)	3 mg/l ((Pseudo. subcapitata-biomass-OECD 201))
	100 mg/l ((Pseudo. subcap. growth rate OECD 201))
96-29-7 2-butano	ne oxime
EC50	630 mg/l (other waterspecies 1) (BACTERIA; TOXICITEITSTEST)
EC50 (48 hours)	500 mg/l (daphnia magna)
	750 mg/l (Daphnia similis Acute Toxicity Study) (DAPHNIA MAGNA)
EC50 (72 hours)	83 mg/l (other waterspecies 2) (SCENEDESMUS SUBSPICATUS)
LC50 (48 hours)	750 mg/l (other waterspecies 1)
LC50 (96 hours)	320-1000 mg/l (fish 1) (LEUCISCUS IDUS; STATISCH SYSTEM)
	48 mg/l (fish 2) (LEPOSMIS MACEOCHIRUS; STATISCH SYSTEM)

- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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· ADR

Safety Data Sheet acc. to OSHA HCS

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Trade name: Epifanes Undercoat/Epigrond

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· Uncleaned packagings:

 \cdot Recommendation: Disposal must be made according to official regulations.

14 Transport information	
· UN-Number	
· DOT, ADR, IMDG, IATA	UN1263
· UN proper shipping name	
· DOT	CONSUMER COMMODITY, ORM-D
	Paint
· ADR	1263 Paint
· IMDG	CONSUMER COMMODITY, ORM-D PAINT
· IATA	PAINT
· Transport hazard class(es)	
· DOT	
3	
· Class	3 Flammable liquids
· Label	3
· ADR, IMDG, IATA	
V	
· Class	3 Flammable liquids
· Label	3
· Packing group	
· DOT, ADR, IMDG, IATA	III
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Warning: Flammable liquids
· Danger code (Kemler):	30
· EMS Number:	F-E, <u>S-E</u>
· Transport in bulk according to Annex	
II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: 60 L
	On cargo aircraft only: 220 L
· Remarks:	CERCLA/DOT RQ: 617gal./4786 lbs.

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Trade name: Epifanes Undercoat/Epigrond

(Contd. of page 9)

	(conta. of page 9)
· Excepted quantities (EQ)	Code: E1
-	Maximum net quantity per inner packaging:
	30 ml
	Maximum net quantity per outer packaging:
	1000 ml
· Remarks:	Packaging <450L: exemption viscous
	substances according to 2.2.3.1.5
· 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

UN1263, Paint, 3, III

15 Regulatory information

· UN "Model Regulation":

 \cdot Safety, health and environmental regulations/legislation specific for the substance or mixture

· Sara

· Section 355	· Section 355 (extremely hazardous substances):				
None of the	None of the ingredient is listed.				
· Section 313	· Section 313 (Specific toxic chemical listings):				
136-52-7 c	obalt bis(2-ethylhexanoate)				
· TSCA (Toxic	Substances Control Act):				
64742-48-9	Naphtha (petroleum), hydrotreated heavy (Note-p)				
13463-67-7	titanium dioxide				
14807-96-6	Talc (Mg3H2(SiO3)4)				
546-93-0	3				
64742-47-8	7, 2				
8002-43-5	Soyalecithine				
68953-58-2					
7631-86-9	21 11				
	2-butanone oxime				
68409-80-3	Isomers of fatty acid calcium salts, C6-C19				
22464-99-9					
	cobalt bis(2-ethylhexanoate)				
112-34-5					
14808-60-7					
· Proposition	65				

· Chemicals k	nown to cause cancer:
13463-67-7	titanium dioxide
14808-60-7	Quartz (SiO2)

Chemicals known to cause reproductive toxicity for females:
 None of the ingredients is listed.

(Contd. on page 11)



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(Contd. of page 10)

- · 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.

· Cancerogeni	ty categories	
· EPA (Enviro	nmental Protection Agency)	
None of the	ingredients is listed.	
· TLV (Thresh	old Limit Value established by ACGIH)	
13463-67-7	titanium dioxide	A4
14807-96-6	Talc (Mg3H2(SiO3)4)	A4
14808-60-7	Quartz (SiO2)	A2
· MAK (German	Maximum Workplace Concentration)	
13463-67-7	titanium dioxide	3 A
14807-96-6	Talc (Mg3H2(SiO3)4)	3B
96-29-7	2-butanone oxime	2
14808-60-7	Quartz (SiO2)	1
· NIOSH-Ca (N	ational Institute for Occupational Safety and Health)	·
13463-67-7	titanium dioxide	
14808-60-7	Quartz (SiO2)	

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms







GHS02

GHS07

GHS08

- · Signal word Warning
- · Hazard-determining components of labeling:

titanium dioxide

Talc (Mg3H2(SiO3)4)

2-butanone oxime

· Hazard statements

H226 Flammable liquid and vapour.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

· Precautionary statements Keep away from heat/sparks/open flames/hot surfaces. - No P210 P260 Do not breathe dust/fume/gas/mist/vapors/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. P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P501 Dispose of contents/container in accordance with local/regional/ national/international regulations.

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Trade name: Epifanes Undercoat/Epigrond

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· National regulations:

· Technical instructions (air):

Class	Share in %
I	≤0.5
NK	10-25

· Water hazard class:

Water hazard class 1 (Self-assessment): slightly hazardous for water.

· Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

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.

- Date of preparation / last revision 03/31/2015 / 2
- 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

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

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) 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

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

Flam. Liq. 4: Flammable liquids, Hazard Category 4

Acute Tox. 4: Acute toxicity, Hazard Category 4

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1 Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Carc. 2: Carcinogenicity, Hazard Category 2

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

 \cdot * Data compared to the previous version altered.

US