

1 Identification

- Product identifier
- Trade name: Epifanes Nautiforte Yacht Paint (1-comp.)
- 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 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.

Repr. 2 H361 Suspected of damaging fertility or the unborn child.



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 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.

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Trade name: Epifanes Nautiforte Yacht Paint (1-comp.)

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- Label elements
- 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
Naphtha (petroleum), hydrodesulfurized heavy (Note-P)
2-butanone oxime
cobalt bis(2-ethylhexanoate)
- Hazard statements
H226 Flammable liquid and vapour.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H361 Suspected of damaging fertility or the unborn child.
- 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.
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

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Trade name: Epifanes Nautiforte Yacht Paint (1-comp.)

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· Dangerous components:		
CAS: 13463-67-7 EINECS: 236-675-5	titanium dioxide Carc. 2, H351	25-50%
CAS: 64742-48-9 EINECS: 265-150-3 Reg.nr.: 01-2119463258-33	Naphtha (petroleum), hydrotreated heavy (Note-p) Xn R65 R10-66 Flam. Liq. 3, H226 Asp. Tox. 1, H304	10-25%
CAS: 64742-82-1 EINECS: 265-185-4 Index number: 649-330-00-2 Reg.nr.: 01-2119490979-12	Naphtha (petroleum), hydrodesulfurized heavy (Note-P) Xn R65 N R51/53 R10-66-67 Carc. Cat. 2, Muta. Cat. 2 Flam. Liq. 1, H224 Muta. 1B, H340; Carc. 1B, H350; STOT RE 1, H372; 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%
CAS: 136-52-7 EINECS: 205-250-6 Reg.nr.: 01-2119524678-29	cobalt bis(2-ethylhexanoate) Xn R62 Xi R43 N R50/53 Carc. 2, H351; Repr. 2, H361 Skin Sens. 1, H317	≤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
- 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 medical treatment.
- 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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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
- Special hazards arising from the substance or mixture
No further relevant information available.
- Advice for firefighters
- Protective equipment: Wear fully protective suit.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
Ensure adequate ventilation
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.

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- Control parameters

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

64742-82-1 Naphtha (petroleum), hydrodesulfurized heavy (Note-P)

Inhalative	(Tgg)time weighted average 8 hours / Exposure time	575 mg/m ³ (Consumer/ Consumer)
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The product does not contain any relevant quantities of materials with critical

- ~~Additional information:~~ values that have to be monitored at the workplace.

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 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: nitrile rubber;
recommended glove thickness > 0.45mm. permeability / permeation time: > 480 min. according to EN 374.
- As protection from splashes gloves made of the following materials are suitable:
chloroprene; glove thickness > 0.7mm, breakthrough time > 60min. according to EN 374.
nitrile rubber; glove thickness > 0.3 mm, breakthrough time > 60min. volgens EN 374.

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· Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

· Information on basic 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:	160 °C (320 °F)
· Flash point:	> 40 °C (> 104 °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):	1.2 g/cm ³ (10.014 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.
· Viscosity:	
Dynamic:	Not determined.
Kinematic at 20 °C (68 °F):	35 s (ISO 6 mm)
· Solvent content:	
Organic solvents:	30.4 %
VOC content:	30.4 %
	VOC content:
	364.8 g/l / 3.04 lb/gl

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Solids content: 70.2 % (VB% 1h150 C)
 · Other information: No further relevant information available.

10 Stability and reactivity

- Reactivity
- Chemical stability
- 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 values that are relevant for classification:

13463-67-7 titanium dioxide		
Oral	LD50	>20000 mg/kg bw (rat)
Dermal	LD50	>10000 mg/kg bw (rabbit)
Inhalative	LC50/4 h	>6.82 mg/l (rat)
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))
96-29-7 2-butanone oxime		
Oral	LD50	3700 mg/kg bw (rat)
Dermal	LD50	200-2000 mg/kg bw (rat)
Inhalative	LC50/4 h	20 mg/l (rat)
136-52-7 cobalt bis(2-ethylhexanoate)		
Oral	LD50	>5000 mg/kg (rat)
Dermal	LD50 (Konijn)	5000 mg/kg (rabbit)

- Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: No irritating effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:

- Carcinogenic categories

· IARC (International Agency for Research on Cancer)		
13463-67-7	titanium dioxide	2B
136-52-7	cobalt bis(2-ethylhexanoate)	2B
1330-20-7	xylene	3
98-82-8	cumene	2B

- NTP (National Toxicology Program)

98-82-8	cumene	R
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Trade name: Epifanes Nautiforte Yacht Paint (1-comp.)

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- OSHA-Ca (Occupational Safety & Health Administration)
- None of the ingredients is listed.

12 Ecological information

- Toxicity

- Aquatic toxicity:

64742-48-9 Naphtha (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-butanone 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)

136-52-7 cobalt bis(2-ethylhexanoate)

EC50	0.1-1 mg/l (Algae, Growth inhibition test)
	0.1-1 mg/l (daphnia magna)
LC50	0.1-1 mg/l (Fish Acute Toxicity Study)

- 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 3 (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
- 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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Trade name: Epifanes Nautiforte Yacht Paint (1-comp.)

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- 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 CONSUMER COMMODITY, ORM-D
Paint
- ADR 1263 Paint
- IMDG CONSUMER COMMODITY, ORM-D
PAINT
- IATA PAINT

· Transport hazard class(es)

· DOT



- Class 3 Flammable liquids
- Label 3

· ADR



- Class 3 (F1) Flammable liquids
- Label 3

· IMDG, IATA



- Class 3 Flammable liquids
- Label 3

· Packing group

· DOT, IMDG, IATA III

· Environmental hazards:

· Marine pollutant: No

· Special precautions for user Warning: Flammable liquids

· Danger code (Kemler): 30

· EMS Number: F-E, S-E

· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

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Trade name: Epifanes Nautiforte Yacht Paint (1-comp.)

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· 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.

· ADR	
· 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

· UN "Model Regulation":	UN1263, Paint, 3

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· Section 355 (extremely hazardous substances):

None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):

136-52-7	cobalt bis(2-ethylhexanoate)
78-92-2	butanol
95-63-6	1,2,4-trimethylbenzene
1330-20-7	xylene
98-82-8	cumene

· TSCA (Toxic Substances Control Act):

13463-67-7	titanium dioxide
64742-48-9	Naphtha (petroleum), hydrotreated heavy (Note-p)
64742-82-1	Naphtha (petroleum), hydrodesulfurized heavy (Note-P)
108-65-6	2-methoxy-1-methylethyl acetate
68409-80-3	Isomers of fatty acid calcium salts, C6-C19
22464-99-9	Zirconiumoctoate, 12 % Zr
96-29-7	2-butanone oxime
123-86-4	n-butyl acetate
108-83-8	2,6-dimethylheptan-4-one
136-52-7	cobalt bis(2-ethylhexanoate)
8052-41-3	Stoddard solvent

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78-92-2	butanol
64742-95-6	Solvent naphtha (petroleum), light arom. (Note-P)
25551-13-7	trimethylbenzene
64742-47-8	Distillates (petroleum), hydrotreated light

· Proposition 65

· Chemicals known to cause cancer:

13463-67-7	titanium dioxide
98-82-8	cumene

· 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)		
1330-20-7	xylene	I
98-82-8	cumene	D, CBD

· TLV (Threshold Limit Value established by ACGIH)

13463-67-7	titanium dioxide	A4
1330-20-7	xylene	A4

· MAK (German Maximum Workplace Concentration)

13463-67-7	titanium dioxide	3A
96-29-7	2-butanone oxime	2

· NIOSH-Ca (National Institute for Occupational Safety and Health)

13463-67-7	titanium dioxide
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· 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
Naphtha (petroleum), hydrodesulfurized heavy (Note-P)
2-butanone oxime
cobalt bis(2-ethylhexanoate)

· Hazard statements

H226 Flammable liquid and vapour.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H361 Suspected of damaging fertility or the unborn child.

· Precautionary statements

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

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Trade name: Epifanes Nautiforte Yacht Paint (1-comp.)

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- 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.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- National regulations:
- Technical instructions (air):

Class	Share in %
I	≤0.5
NK	25-50

- Water hazard class:
Water hazard class 3 (Self-assessment): extremely 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. 1: Flammable liquids, Hazard Category 1
 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
 Muta. 1B: Germ cell mutagenicity, Hazard Category 1B
 Carc. 1B: Carcinogenicity, Hazard Category 1B
 Carc. 2: Carcinogenicity, Hazard Category 2
 Repr. 2: Reproductive toxicity, Hazard Category 2
 STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1

 Asp. Tox. 1: Aspiration hazard, Hazard Category 1
- * Data compared to the previous version altered.