

Safety Data Sheet
acc. to OSHA HCS

Printing date 01/12/2021

Reviewed on 01/12/2021

1 Identification

- Product identifier
- Trade name: Epifanes Mono-urethane Yacht Paint (all colors)
- 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.+31 297-360666
fax.+31 297-342078
email:info@epifanes.nl
- Information department: Research & Development.
- 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 vapor.



GHS08 Health hazard

Repr. 1B H360 May damage fertility or the unborn child.



GHS07

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

STOT SE 3 H336 May cause drowsiness or dizziness.

- 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 Danger

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- Hazard-determining components of labeling:
Naphtha (petroleum), hydrotreated heavy (Note-p)
cobalt bis(2-ethylhexanoate)
- Hazard statements
H226 Flammable liquid and vapor.
H317 May cause an allergic skin reaction.
H360 May damage fertility or the unborn child.
H336 May cause drowsiness or dizziness.
- 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): 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)

| | | |
|---|---|---|
| 0 | 2 | 0 |
|---|---|---|

Health = 0
Fire = 2
Reactivity = 0
- HMIS-ratings (scale 0 - 4)

| | |
|------------|---|
| HEALTH | 0 |
| FIRE | 2 |
| REACTIVITY | 0 |

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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| · Dangerous components: | | |
|---|---|--------|
| CAS: 13463-67-7 EINECS: 236-675-5 Index number: 022-006-00-2 | titanium dioxide ☠️ Carc. 2, H351 | 25-50% |
| CAS: 64742-48-9 EC number: 919-857-5 Index number: 649-327-00-6 | Naphtha (petroleum), hydrotreated heavy (Note-p) ⚠️ Flam. Liq. 3, H226 ⚠️ Asp. Tox. 1, H304 ⚠️ STOT SE 3, H336 | 10-25% |
| CAS: 136-52-7 EINECS: 205-250-6 | cobalt bis(2-ethylhexanoate) ☠️ Carc. 2, H351; Repr. 1B, H360 ⚠️ Eye Irrit. 2A, H319; Skin Sens. 1A, H317 | <0.3% |

· Additional information:

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

4 First-aid measures

- Description of first aid measures
- General information: Immediately remove any clothing soiled by the product.
- After inhalation:
Supply fresh air and to be sure call for a doctor.
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.
- After swallowing: If symptoms persist consult doctor.
- 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
If swallowed, gastric irrigation with added, activated carbon.

5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents:
CO₂, extinguishing powder or water spray. Fight larger fires with water spray.
- For safety reasons unsuitable extinguishing agents: Water with full jet
- 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.
- Advice for firefighters
- Protective equipment: Mouth respiratory protective device.

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6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
 Ensure adequate ventilation
 Keep away from ignition sources
 Mount respiratory protective device.
 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).
 Dispose contaminated material as waste according to item 13.
 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.
- Protective Action Criteria for Chemicals

· PAC-1:

| | | |
|------------|--|-----------------------|
| 13463-67-7 | titanium dioxide | 30 mg/m ³ |
| 64742-48-9 | Naphtha (petroleum), hydrotreated heavy (Note-p) | 350 mg/m ³ |
| 108-83-8 | 2,6-dimethylheptan-4-one | 75 ppm |
| 123-86-4 | n-butyl acetate | 5 ppm |
| 108-65-6 | 2-methoxy-1-methylethyl acetate | 50 ppm |
| 78-92-2 | butanol | 150 ppm |
| 112-34-5 | 2-(2-butoxyethoxy)ethanol | 30 ppm |

· PAC-2:

| | | |
|------------|--|-------------------------|
| 13463-67-7 | titanium dioxide | 330 mg/m ³ |
| 64742-48-9 | Naphtha (petroleum), hydrotreated heavy (Note-p) | 1,800 mg/m ³ |
| 108-83-8 | 2,6-dimethylheptan-4-one | 330 ppm |
| 123-86-4 | n-butyl acetate | 200 ppm |
| 108-65-6 | 2-methoxy-1-methylethyl acetate | 1,000 ppm |
| 78-92-2 | butanol | 220 ppm |
| 112-34-5 | 2-(2-butoxyethoxy)ethanol | 33 ppm |

· PAC-3:

| | | |
|------------|--|--------------------------|
| 13463-67-7 | titanium dioxide | 2,000 mg/m ³ |
| 64742-48-9 | Naphtha (petroleum), hydrotreated heavy (Note-p) | 40,000 mg/m ³ |
| 108-83-8 | 2,6-dimethylheptan-4-one | 2000* ppm |
| 123-86-4 | n-butyl acetate | 3000* ppm |
| 108-65-6 | 2-methoxy-1-methylethyl acetate | 5000* ppm |
| 78-92-2 | butanol | 10000** ppm |

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112-34-5 2-(2-butoxyethoxy)ethanol

200 ppm

7 Handling and storage

- Handling:
- Precautions for safe handling
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.
Keep respiratory protective device available.
- 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:
Store in dry 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.
- Control parameters
- Components with limit values that require monitoring at the workplace:
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

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

| | |
|-----|--|
| TLV | Long-term value: 0.02* mg/m ³ as Co, *inhalable; DSEN; RSEN; BEI |
|-----|--|

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

| | |
|-----|--|
| TLV | Long-term value: 0.02* mg/m ³ as Co, *inhalable; DSEN; RSEN; BEI |
|-----|--|

- Regulatory information TLV: Guide to Occupational Exposure Values (ACGIH)
- Additional information:
The lists that were valid during the creation were used as basis.
- Exposure controls
- 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.

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- 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.
- Not suitable are gloves made of the following materials:
Strong gloves
Leather gloves
- Eye protection:



Tightly sealed goggles

- Body protection: Use protective suit.

9 Physical and chemical properties

- Information on basic physical and chemical properties
- General Information
- Appearance:
Form: Fluid

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| | |
|--|--|
| Color: | According to product specification |
| · Odor: | Characteristic |
| · Odor threshold: | Not determined. |
| · pH-value at 20 °C (68 °F): | n.v.t. |
| · Change in condition | |
| Melting point/Melting range: | Undetermined. |
| Boiling point/Boiling range: | 150 °C (302 °F) |
| · Flash point: | 42 °C (107.6 °F) |
| · Flammability (solid, gaseous): | Not applicable. |
| · Ignition temperature: | 210 °C (410 °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 Vol % |
| · Vapor pressure at 20 °C (68 °F): | 1 hPa (0.8 mm Hg) |
| · Density at 20 °C (68 °F): | 1.1 g/cm ³ (9.1795 lbs/gal) |
| · Relative density | Not determined. |
| · Vapor 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): | 40 s (ISO 6 mm) |
| · Solvent separation test | n.v.t. % |
| · Solvent content: | |
| Organic solvents: | 25.8 % |
| VOC content: | 25.78 % |
| | VOC content: 283.6 g/l / 2.37 lb/gal |
| Solids content: | 60.9 % (VB% 1h 150C) |
| · Other information | No further relevant information available. |

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10 Stability and reactivity

- Reactivity No further relevant information available.
- 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 | >20,000 mg/kg bw (rat) |
| Dermal | LD50 | >10,000 mg/kg bw (rabbit) |
| Inhalative | LC50/4 h | >6.82 mg/l (rat) |

64742-48-9 Naphtha (petroleum), hydrotreated heavy (Note-p)

| | | |
|------------|------|--|
| Oral | LD50 | >5,000 mg/kg bw (rat) |
| Dermal | LD50 | >5,000 mg/kg bw (rabbit) ((24h)) |
| Inhalative | LC50 | >5,000 mg/m ³ (vapour) (rat) ((8h)) |

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

| | | |
|--------|---------------|----------------------|
| Oral | LD50 | >5,000 mg/kg (rat) |
| Dermal | LD50 (Konijn) | 5,000 mg/kg (rabbit) |

- Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: No irritating effect.
- Sensitization: Sensitization possible through skin contact.
- Additional toxicological information:
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

- Carcinogenic categories

- IARC (International Agency for Research on Cancer)

| | | |
|------------|------------------------------|----|
| 13463-67-7 | titanium dioxide | 2B |
| 136-52-7 | cobalt bis(2-ethylhexanoate) | 2B |

- NTP (National Toxicology Program)

None of the ingredients is listed.

- OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

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12 Ecological information

· Toxicity

· Aquatic toxicity:

64742-48-9 Naphtha (petroleum), hydrotreated heavy (Note-p)

| | |
|-------------|--|
| ErL (72h) | >1,000 mg/l (Pseudokirchneriella subcapitata-OECD 201) |
| EL50 (48h) | >1,000 mg/l ((Daphnia magna-OECD 202)) |
| LL50 (96h) | >1,000 mg/l ((Onorhynchus mykiss OECD 203)) |
| EbL50 (72h) | >1,000 mg/l (Pseudokirchneriella subcapitata-OECD 201) |
| NOELR (72h) | 3 mg/l ((Pseudo. subcapitata-biomass-OECD 201)) 100 mg/l ((Pseudo. subcap. growth rate OECD 201)) |

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

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

- Persistence and degradability No further relevant information available.
- Behavior in environmental systems:
- Bioaccumulative potential Non significant accumulation in organisms
- Mobility in soil No further relevant information available.
- Ecotoxicological effects:
- Remark: Harmless to algae up to the tested concentration.
- 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.
- 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.
- Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.
- Recommended cleansing agent: Solvent naphtha

14 Transport information

- UN-Number
 - DOT, IATA
- UN1263

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| | |
|---|--|
| · ADR, IMDG | Void |
| · UN proper shipping name | |
| · DOT | CONSUMER COMMODITY, ORM-D Paint |
| · ADR | Void |
| · IMDG | CONSUMER COMMODITY, ORM-D Void |
| · IATA | PAINT |
| · Transport hazard class(es) | |
| · DOT | |
|  | |
| · Class | 3 Flammable liquids |
| · Label | 3 |
| · ADR, ADN, IMDG | |
| · Class | Void |
| · IATA | |
|  | |
| · Class | 3 Flammable liquids |
| · Label | 3 |
| · Packing group | |
| · DOT, IATA | III |
| · ADR, IMDG | Void |
| · Environmental hazards: | |
| · Marine pollutant: | No |
| · Special precautions for user | Not applicable. |
| · 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. |
| · ADR | |
| · Remarks: | Packaging <450L: exemption viscous substances according to 2.2.3.1.5 > 450 l: 3 F1, III |

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- IMDG
- Remarks: > 450 1: 3, III
- UN "Model Regulation": Void

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 |
| 112-34-5 | 2-(2-butoxyethoxy)ethanol |

· TSCA (Toxic Substances Control Act):

| | | |
|------------|--|--------|
| 13463-67-7 | titanium dioxide | ACTIVE |
| 64742-48-9 | Naphtha (petroleum), hydrotreated heavy (Note-p) | ACTIVE |
| 22464-99-9 | Zirconiumoctoate, 12 % Zr | ACTIVE |
| 68409-80-3 | Isomers of fatty acid calcium salts, C6-C19 | ACTIVE |
| 105-44-2 | 4-methylpentan-2-one oxime | ACTIVE |
| 108-83-8 | 2,6-dimethylheptan-4-one | ACTIVE |
| 123-86-4 | n-butyl acetate | ACTIVE |
| 108-65-6 | 2-methoxy-1-methylethyl acetate | ACTIVE |
| 136-52-7 | cobalt bis(2-ethylhexanoate) | ACTIVE |
| 78-92-2 | butanol | ACTIVE |
| 112-34-5 | 2-(2-butoxyethoxy)ethanol | ACTIVE |

· Hazardous Air Pollutants

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

· Proposition 65

· Chemicals known to cause cancer:

| | |
|------------|------------------|
| 13463-67-7 | titanium dioxide |
|------------|------------------|

· 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.

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· Cancerogenity categories

| | | |
|--|------------------|----|
| · EPA (Environmental Protection Agency) | | |
| None of the ingredients is listed. | | |
| · TLV (Threshold Limit Value established by ACGIH) | | |
| 13463-67-7 | titanium dioxide | A4 |
| · MAK (German Maximum Workplace Concentration) | | |
| 13463-67-7 | titanium dioxide | 3A |
| · NIOSH-Ca (National Institute for Occupational Safety and Health) | | |
| 13463-67-7 | titanium dioxide | |

· GHS label elements

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

· Hazard pictograms



GHS02 GHS07 GHS08

· Signal word Danger

· Hazard-determining components of labeling:

Naphtha (petroleum), hydrotreated heavy (Note-p)
cobalt bis(2-ethylhexanoate)

· Hazard statements

H226 Flammable liquid and vapor.
H317 May cause an allergic skin reaction.
H360 May damage fertility or the unborn child.
H336 May cause drowsiness or dizziness.

· 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): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· National regulations:

· Technical instructions (air):

| Class | Share in % |
|-------|------------|
| NK | 25-50 |

· Water hazard class:

Water hazard class 2 (Self-assessment): hazardous for water.

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- 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.

- Department issuing SDS: Environment protection department.
- Contact: J.J. van Dijk
- Date of preparation / last revision 01/12/2021 / 6
- 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 relatif au transport international 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
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Flam. Liq. 3: Flammable liquids - Category 3
Eye Irrit. 2A: Serious eye damage/eye irritation - Category 2A
Skin Sens. 1: Skin sensitisation - Category 1
Skin Sens. 1A: Skin sensitisation - Category 1A
Carc. 2: Carcinogenicity - Category 2
Repr. 1B: Reproductive toxicity - Category 1B
STOT SE 3: Specific target organ toxicity (single exposure) - Category 3
Asp. Tox. 1: Aspiration hazard - Category 1
- * Data compared to the previous version altered.