

Werdol Metalprimer

A one-component leadfree anticorrosive primer for use on bare steel in a one-component paint system above the waterline. Suitable for interior and exterior use. Provides excellent rust preventing properties combined with good hiding power and easy to sand qualities. Recoatable with all Epifanes one-component yachtpaints

Type	Air drying, lead and chromate free
Base	Urethane resins / alkyd resins / zinc phosphate
Colour	White - grey
Gloss	Semi gloss
Density	1.35 kg/dm ³
Viscosity	120-130 seconds Din Cup 4 mm.
Solids content	55 ± 2 vol. %
Drying times at 20°C. / 65% RAH	dust dry - 1 hour sandable - 12 hours recoatable - 12 hours.

Application	Airless spray	Air spray	Brush/roller
Vol.% thinner	5 - 10	15 - 20	0 - 5
Nozzle	0.018" - 0.021"	1.5 - 2.0 mm	
Pressure (Bar)	120-150	3-5	
Visc. Din Cup 4mm	60-80	20 - 24	

Thinner	Epifanes Thinner D-100
- airless spray application	Epifanes Spraythinner for Paint & Varnish
- airspray application	Epifanes Brushthinner for Paint & Varnish
- brush/roller application	

Theoretical coverage	12 m ² per litre @ 45 µm dryfilmthickness
Practicle coverage	Dependant on application methode, kind and condition of substrate, loss of material due to shape of object, circumstances during application, etc.

Recommended wetfilmthickness	70 µm, (= 45 µm dryfilmthickness)
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Recommended system	On bare steel, apply at least three coats. Apply first coat, thinned 5%. Apply this coat by brush in order to fill the pores of the steel. Do not apply wet-on-wet and do not apply too high a wetfilmthickness in order to avoid the formation of curtains and drying problems.
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Sanding	Lightly sand between coats with dry abrasive paper nr. 180-220.
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Overcoatability	One-component alkyd and/or urethane based paints and paints based on chlorinated rubber.
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Substrate conditions	Remove mill scale, all rust, grease or other contamination. Remove all salt and other water soluble dirt with fresh water. Remove grease and oil with water and ammonium solution or with Epifanes Thinner D-601 or Epifanes Spraythinner for Paint and Varnish.
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App[lication guide lines	Before applying, stir thoroughly. The application and drying should occur in well ventilated areas. Always secure sufficient air circulation for supply of fresh air and disposal of solvent fumes and in order to avoid health hazards and drying problems. Avoid painting in direct sunlight or too much wind. A rapid loss of solvents will occur under these conditions and decrease the flowing ability.
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Application conditions	Temperature of paint, object and work area during application and drying should not be lower than 8°C. Relative air humidity should not exceed 85%. Temperatrure of object during and drying should be at least 3°C above dew point.
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Material Safety Data Sheet
According to 91/155 EEC

Printing date 19.03.2004

Reviewed on 27.02.2003


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

- Product details
- Trade name: Werdol Metalprimer
- Application of the substance / the preparation
Paint
One component anticorrosive primer for steel above the waterline.
- Manufacturer/Supplier:
W.HEEREN & ZOON BV
Postbus 166
1430 AD Aalsmeer
tel. +31-297-360366
fax. +31-297-342078
- Further information obtainable from: Department Research & Development
- Information in case of emergency: See under Manufacturer/Supplier

2 Composition/information on ingredients

- Chemical characterization
- Description:
Resin mixture
Solvent mixture with pigment additives

• Dangerous components:

CAS: 64742-48-9	Naphtha (petroleum), hydrotreated heavy	31.275%
EINECS: 265-150-3	 Xn; R 10-65-66	

- Additional information:
For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

- Hazard description: Not applicable.
- Information concerning particular hazards for human and environment:
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- Classification system:
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

4 First-aid measures

- General information: No special measures required.
- 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: If symptoms persist consult doctor.

5 Fire-fighting measures

- Suitable extinguishing agents:
CO₂, sand, extinguishing powder. Do not use water.
- For safety reasons unsuitable extinguishing agents:
Water

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Water with full jet

- Protective equipment: No special measures required.

6 Accidental release measures

- Person-related safety precautions: 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).
- Additional information: No dangerous substances are released.

7 Handling and storage

- Handling:
- Information for safe handling: No special measures required.
- Information about fire - and explosion protection:
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- Storage:
- Requirements to be met by storerooms and receptacles:
No special requirements.
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions:
Store receptacle in fume cupboard.

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

7927-13-9	barium sulphate, natural
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OES	Long-term value: 10* 4** mg/m ³ *total inhalable dust **respirable dust
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546-93-0 Magnesite

OES	Long-term value: 10* 4** mg/m ³ *total inhalable dust **respirable dust
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- Additional information:
The lists valid during the making were used as basis.
- Personal protective equipment:
- Respiratory protection: Not necessary if room is well-ventilated.
- Protection of hands:
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

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- 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: Safety glasses

9 Physical and chemical properties

• General Information

Form:	Fluid
Colour:	According to product specification
Odour:	Characteristic

• Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.

• Flash point: 36°C

• Ignition temperature: 240°C

• Self-igniting: Product is not selfigniting.

• Danger of explosion: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

• Explosion limits:

Lower:	0.6 Vol %
Upper:	7.0 Vol %

• Vapour pressure at 20°C: 1 hPa

• Density at 20°C: 1.29 g/cm³ (ISO 2811)

• Solubility in / Miscibility with water: Not miscible or difficult to mix.

• Viscosity:

Kinematic at 20°C: 35 s (ISO 6 mm)

• Solvent content:

Organic solvents: 30.9 %

• Solids content: 69.1 % (VB% 1h 150C)

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:
No dangerous decomposition products known.

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11 Toxicological information

- Acute toxicity:

- LD/LC50 values relevant for classification:

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

Oral	LD50	>5000 mg/kg (rat)
Dermal	LD50	>3000 mg/kg (rab)

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

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

12 Ecological information

- General notes:

Water hazard class 1 (German Regulation) (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.

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: 1263
- Packaging group: III
- Hazard label: 3
- Description of goods: 1263 PAINT

- Maritime transport IMDG:
 - IMDG Class: 3
 - UN Number: 1263
 - Label: 3

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- Packaging group: III
- EMS Number: F-E,S-E
- Marine pollutant: No
- Proper shipping name: PAINT



- Air transport ICAO-TI and IATA-DGR:
- ICAO/IATA Class: 3
- UN/ID Number: 1263
- Label: 3
- Packaging group: III
- Proper shipping name: PAINT

15 Regulatory information

- Labelling according to EU guidelines:
The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).
- National regulations:
- Technical instructions (air):

Class	Share in %
Water	1.7
III	0.3

- 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.

- Relevant R-phrases
10 Flammable.
65 Harmful: may cause lung damage if swallowed.
66 Repeated exposure may cause skin dryness or cracking.
- Department issuing MSDS: Department Research & Development
- Contact: T.J.H.M. van Steenes