

SAFETY DATA SHEET

Date of issue/Date of revision

: 20 April 2025

Version

: 4.04



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

1.1 Product identifier

Product name : VIGOR ZN 302 SR EVO HARDENER

Product code : 000001059688

Other means of identification

00280308; 00418549

1.2 Relevant identified uses of the substance or mixture and uses advised against

Product use : Professional applications, Used by spraying.

Use of the substance/mixture : Hardener.

Uses advised against : Product is not intended, labelled or packaged for consumer use.

1.3 Details of the supplier of the safety data sheet

PPG Sénégal

BP1107, Dakar

Senegal

Tel: 00221 33 832 3475

Fax: 00221 33 832 0973

e-mail address of person responsible for this SDS : PS.ACEMEA@ppg.com

1.4 Emergency telephone number : ORFILA (INRS) 0033 (0)1 45 42 59 59 / 00221 33 832 3475

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flam. Liq. 2, H225

Skin Irrit. 2, H315

Eye Irrit. 2, H319

STOT RE 1, H372

Aquatic Chronic 3, H412

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Danger

Code : 000001059688

Date of issue/Date of revision

: 20 April 2025

VIGOR ZN 302 SR EVO HARDENER

SECTION 2: Hazards identification

Hazard statements

- : Highly flammable liquid and vapour.
- Causes skin irritation.
- Causes serious eye irritation.
- Causes damage to organs through prolonged or repeated exposure.
- Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention

- : Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment. Do not breathe vapour.

Response

- : Get medical advice/attention if you feel unwell.

Storage

- : Not applicable.

Disposal

- : Dispose of contents and container in accordance with all local, regional, national and international regulations.

P280, P210, P273, P260, P314, P501

Hazardous ingredients

- : Quartz (SiO₂)

Supplemental label elements

- : Contains ethylenediamine and N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide). May produce an allergic reaction.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

- : Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings

- : Not applicable.

Tactile warning of danger

- : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

- : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification

- : Prolonged or repeated contact may dry skin and cause irritation.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

- : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Crystalline silica, respirable powder (<10 microns)	EC: 238-878-4 CAS: 14808-60-7	≥10 - ≤25	STOT RE 1, H372 (inhalation)	-	[1] [2]
propan-2-ol	REACH #: 01-2119457558-25 EC: 200-661-7 CAS: 67-63-0 Index: 603-117-00-0	≥5.0 - ≤10	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	-	[1] [2]

Code : 000001059688

Date of issue/Date of revision

: 20 April 2025

VIGOR ZN 302 SR EVO HARDENER

SECTION 3: Composition/information on ingredients

xylene	REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7	≥5.0 - ≤10	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 3, H412	ATE [Dermal] = 1700 mg/kg ATE [Inhalation (vapours)] = 11 mg/l	[1] [2]
2,4,6-tris (dimethylaminomethyl) phenol	REACH #: 01-2119560597-27 EC: 202-013-9 CAS: 90-72-2	≥1.0 - <3.0	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1C, H314 Eye Dam. 1, H318	ATE [Oral] = 1200 mg/kg ATE [Dermal] = 1280 mg/kg	[1]
zinc oxide	REACH #: 01-2119463881-32 EC: 215-222-5 CAS: 1314-13-2 Index: 030-013-00-7	≥0.30 - <2.5	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1]
ethylbenzene	REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4	≥1.0 - ≤5.0	Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304 Aquatic Chronic 3, H412	ATE [Inhalation (vapours)] = 17.8 mg/l	[1] [2]
ethylenediamine	REACH #: 01-2119480383-37 EC: 203-468-6 CAS: 107-15-3 Index: 612-006-00-6	≤0.30	Flam. Liq. 3, H226 Acute Tox. 4, H302 Acute Tox. 3, H311 Acute Tox. 4, H332 Skin Corr. 1B, H314 Eye Dam. 1, H318 Resp. Sens. 1B, H334 Skin Sens. 1, H317 Aquatic Chronic 3, H412	ATE [Oral] = 841 mg/kg ATE [Dermal] = 560 mg/kg ATE [Inhalation (gases)] = 6000 ppm	[1] [2]
N,N'-ethane-1,2-diylibis (12-hydroxyoctadecan-1-amide)	REACH #: 01-2119978265-26 EC: 204-613-6 CAS: 123-26-2	≤0.30	Skin Sens. 1B, H317 Aquatic Chronic 3, H412 See Section 16 for the full text of the H statements declared above.	-	[1] [2]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

Code : 000001059688

Date of issue/Date of revision

: 20 April 2025

VIGOR ZN 302 SR EVO HARDENER

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.

Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Skin contact : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.

Ingestion : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation. Defatting to the skin.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
irritation
redness
dryness
cracking

Ingestion : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Code : 000001059688

Date of issue/Date of revision

: 20 April 2025

VIGOR ZN 302 SR EVO HARDENER

SECTION 5: Firefighting measures

Hazardous combustion products

- Decomposition products may include the following materials:
carbon oxides
nitrogen oxides
metal oxide/oxides

5.3 Advice for firefighters

Special precautions for fire-fighters

- Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

- No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders

- If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

- Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

6.3 Methods and material for containment and cleaning up

Small spill

- Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

- Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

6.4 Reference to other sections

- See Section 1 for emergency contact information.
- See Section 8 for information on appropriate personal protective equipment.
- See Section 13 for additional waste treatment information.

Code : 000001059688

Date of issue/Date of revision

: 20 April 2025

VIGOR ZN 302 SR EVO HARDENER

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures

- Put on appropriate personal protective equipment (see Section 8). Do not breathe vapour or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

- Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

- Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

See Section 1.2 for Identified uses.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
crystalline silica, respirable powder (<10 microns)	ACGIH TLV (United States, 1/2024) [Silica, crystalline] A2. TWA 8 hours: 0.025 mg/m ³ . Form: Respirable fraction. ACGIH TLV (United States, 1/2024) A4. TWA 8 hours: 200 ppm. STEL 15 minutes: 400 ppm.
xylene	EU OEL (Europe, 1/2022) [xylene, mixed isomers] Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 221 mg/m ³ . STEL 15 minutes: 100 ppm. STEL 15 minutes: 442 mg/m ³ .
ethylbenzene	EU OEL (Europe, 1/2022) Absorbed through skin. TWA 8 hours: 100 ppm. TWA 8 hours: 442 mg/m ³ .

Code : 000001059688

Date of issue/Date of revision

: 20 April 2025

VIGOR ZN 302 SR EVO HARDENER

SECTION 8: Exposure controls/personal protection

ethylenediamine	STEL 15 minutes: 200 ppm. STEL 15 minutes: 884 mg/m ³ . ACGIH TLV (United States, 1/2024) A4. Absorbed through skin. TWA 8 hours: 10 ppm.
N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide)	ACGIH TLV (United States) TWA: 10 mg/m ³ . Form: Total dust. TWA: 3 mg/m ³ . Form: Respirable.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

8.2 Exposure controls

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time greater than 480 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 2 or higher (breakthrough time greater than 30 minutes according to EN 374) is recommended. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

Gloves

: For prolonged or repeated handling, use the following type of gloves:

May be used: nitrile rubber

Recommended: butyl rubber, polyvinyl alcohol (PVA), Viton®

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

Code : 000001059688

Date of issue/Date of revision

: 20 April 2025

VIGOR ZN 302 SR EVO HARDENER

SECTION 8: Exposure controls/personal protection

Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

:

Environmental exposure controls

:

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state

: Liquid.

Colour

: Not available.

Odour

: Amine-like.

Odour threshold

: Not available.

Melting point/freezing point

: Not determined.

Initial boiling point and boiling range

: >37.78°C

Flammability

: Not determined. There are no data available on the mixture itself.

Upper/lower flammability or explosive limits

: Not available.

Flash point

: Closed cup: 17°C

Auto-ignition temperature

	Ingredient name	°C	°F	Method
	2,4,6-tris(dimethylaminomethyl)phenol	382	719.6	EU A.15

Decomposition temperature

: Stable under recommended storage and handling conditions (see Section 7).

pH

: Not applicable. insoluble in water.

Viscosity

: Dynamic (room temperature): Not available.

Kinematic (room temperature): Not available.

Kinematic (40°C): >21 mm²/s

Solubility(ies)

:

Media	Result
cold water	Not soluble

Partition coefficient: n-octanol/ water

: Not applicable.

Vapour pressure

	Ingredient name	Vapour Pressure at 20 °C			Vapour pressure at 50 °C		
		mm Hg	kPa	Method	mm Hg	kPa	Method
	propan-2-ol	33.00268	4.4				

Relative density

: 1.64

Explosive properties

: The product itself is not explosive, but the formation of an explosive mixture of vapour or dust with air is possible.

: Product does not present an oxidizing hazard.

Oxidising properties

Particle characteristics

Median particle size

: Not applicable.

Code : 000001059688

Date of issue/Date of revision

: 20 April 2025

VIGOR ZN 302 SR EVO HARDENER

SECTION 9: Physical and chemical properties

9.2 Other information

Explosive properties

: The product itself is not explosive, but the formation of an explosive mixture of vapour or dust with air is possible.

Oxidising properties

: Product does not present an oxidizing hazard.

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : The product is stable.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.

10.5 Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.

10.6 Hazardous decomposition products : Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides metal oxide/oxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects

The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly.

Causes serious eye irritation.

Causes skin irritation.

Causes damage to organs through prolonged or repeated exposure.

Acute toxicity

Product/ingredient name	Result	Dose / Exposure
propan-2-ol	Rat - Oral - LD50 <i>Toxic effects:</i> Behavioral - Altered sleep time (including change in righting reflex) Behavioral - Somnolence (general depressed activity) Rabbit - Dermal - LD50 <i>Toxic effects:</i> Behavioral - Somnolence (general depressed activity) Behavioral - Irritability Gastrointestinal - Nausea or vomiting Rat - Inhalation - LC50 Vapour	5045 mg/kg 12800 mg/kg 72600 mg/m ³ [4 hours]
XYLENES	Rat - Oral - LD50 Rabbit - Dermal - LD50	4.3 g/kg 1.7 g/kg
2,4,6-tris(dimethylaminomethyl)phenol	Rat - Dermal - LD50 Rat - Oral - LD50 <i>Toxic effects:</i> Peripheral Nerve and Sensation - Flaccid paralysis without anesthesia (usually neuromuscular blockage) Lung, Thorax, or Respiration - Dyspnea	1280 mg/kg 1200 mg/kg
zinc oxide	Rat - Oral - LD50 Rat - Dermal - LD50	>5000 mg/kg >2000 mg/kg

Code : 000001059688

Date of issue/Date of revision

: 20 April 2025

VIGOR ZN 302 SR EVO HARDENER

SECTION 11: Toxicological information

ethylbenzene	Rat - Inhalation - LC50 Dusts and mists Rat - Oral - LD50 Rabbit - Dermal - LD50	>5700 mg/m ³ [4 hours] 3.5 g/kg 17.8 g/kg
ethylenediamine	Rat - Inhalation - LC50 Vapour Rat - Male, Female - Oral - LD50 Rabbit - Male - Dermal - LD50 Rat - Inhalation - LC50 Gas.	17.8 mg/l [4 hours] 841 mg/kg 560 mg/kg 6000 ppm [4 hours]
AMIDE	Rat - Oral - LD50 Rat - Dermal - LD50 Rat - Inhalation - LC50 Dusts and mists	>2000 mg/kg >2000 mg/kg >5.11 mg/l [4 hours]

Acute toxicity estimates

Route	ATE value
Oral	41694.17 mg/kg
Dermal	16904.02 mg/kg
Inhalation (vapours)	182.1 mg/l

Conclusion/Summary : Based on available data, the classification criteria are not met.**Irritation/Corrosion**

Product/ingredient name	Result
xylene	Rabbit - Skin - Moderate irritant Amount/concentration applied: 500 mg Duration of treatment/exposure: 24 hours

Conclusion/Summary**Skin** : Causes skin irritation.**Eyes** : Causes serious eye irritation.**Respiratory** : Based on available data, the classification criteria are not met.**Respiratory or skin sensitization****Conclusion/Summary****Skin** : Based on available data, the classification criteria are not met.**Respiratory** : Based on available data, the classification criteria are not met.**Mutagenicity**

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
propan-2-ol xylene	Category 3 Category 3	- -	Narcotic effects Respiratory tract irritation

Conclusion/Summary (Product) :

Based on available data, the classification criteria are not met.

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
crystalline silica, respirable powder (<10 microns) ethylbenzene	Category 1 Category 2	inhalation -	- hearing organs

Code : 000001059688

Date of issue/Date of revision

: 20 April 2025

VIGOR ZN 302 SR EVO HARDENER

SECTION 11: Toxicological information

Conclusion/Summary (Product) :

Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard

Product/ingredient name	Result
Xylene	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1

Conclusion/Summary (Product) : Based on available data, the classification criteria are not met.

Information on likely routes of exposure : Not available.

Potential acute health effects

- Inhalation** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. Defatting to the skin.
- Eye contact** : Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

- Inhalation** : No specific data.
- Ingestion** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

- Potential immediate effects** : No known significant effects or critical hazards.
- Potential delayed effects** : No known significant effects or critical hazards.

Long term exposure

- Potential immediate effects** : No known significant effects or critical hazards.
- Potential delayed effects** : No known significant effects or critical hazards.

Potential chronic health effects

- General** : Causes damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** : No known significant effects or critical hazards.
- Other information** : Not available.

Prolonged or repeated contact may dry skin and cause irritation. Sanding and grinding dusts may be harmful if inhaled. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapour/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing.

Code : 000001059688

Date of issue/Date of revision

: 20 April 2025

VIGOR ZN 302 SR EVO HARDENER

SECTION 11: Toxicological information

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Dose / Exposure
propan-2-ol	Acute - EC50 - Fresh water	Daphnia - Water flea - <i>Daphnia magna</i>	10.1 g/l [48 hours]
2,4,6-tris (dimethylaminomethyl)phenol	Acute - LC50	Daphnia	>100 mg/l [48 hours]
	Acute - LC50	Fish	>100 mg/l [96 hours]
zinc oxide	Acute - EC50 - Fresh water	Daphnia - Water flea - <i>Daphnia magna</i> - Neonate	0.481 mg/l [48 hours]
	Acute - EC50	Algae	0.17 mg/l [72 hours]
	Chronic - NOEC - Fresh water	Algae	0.017 mg/l [72 hours]
ethylbenzene	Acute - EC50 - Fresh water	Daphnia	1.8 mg/l [48 hours]
	Chronic - NOEC - Fresh water	Daphnia - <i>Ceriodaphnia dubia</i>	1 mg/l
N,N'-ethane-1,2-diylbis (12-hydroxyoctadecan-1-amide)	Acute - EC50	Daphnia - <i>Daphnia magna</i>	94 mg/l [48 hours]
	Acute - EC50	Algae - <i>Pseudokirchneriella subcapitata</i>	29 to 43 mg/l [72 hours]

Conclusion/Summary : Harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
2,4,6-tris (dimethylaminomethyl)phenol	OECD [Ready Biodegradability - Closed Bottle Test]	4% [28 days] - Not readily		
ethylbenzene	-	79% [10 days] - Readily		
ethylenediamine	-	95% [28 days]		
N,N'-ethane-1,2-diylbis (12-hydroxyoctadecan-1-amide)	-	63% [28 days]		

Code : 000001059688

Date of issue/Date of revision

: 20 April 2025

VIGOR ZN 302 SR EVO HARDENER

SECTION 12: Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
xylene	-	-	Readily
2,4,6-tris(dimethylaminomethyl)phenol	-	-	Not readily
ethylbenzene	-	-	Readily
ethylenediamine	-	-	Readily
N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide)	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
propan-2-ol	0.05	-	Low
xylene	3.12	7.4 to 18.5	Low
2,4,6-tris(dimethylaminomethyl)phenol	0.219	-	Low
ethylbenzene	3.6	79.43	Low
ethylenediamine	-2.04	-	Low
N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide)	>6	-	High

12.4 Mobility in soil**Soil/water partition coefficient**

Product/ingredient name	logK _{oc}	K _{oc}
propan-2-ol	0.54	3.4364
2,4,6-tris(dimethylaminomethyl)phenol	2.72	525.589
ethylbenzene	2.23	170.406
ethylenediamine	0.63	4.24117
N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide)	4.31	20542.3

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods**Product**

Code : 000001059688

Date of issue/Date of revision

: 20 April 2025

VIGOR ZN 302 SR EVO HARDENER

SECTION 13: Disposal considerations

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Yes.

European waste catalogue (EWC)

Waste code	Waste designation
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Type of packaging	European waste catalogue (EWC)
Container	15 01 06 mixed packaging

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number or ID number	UN1263	UN1263	UN1263
14.2 UN proper shipping name	PAINT	PAINT	PAINT
14.3 Transport hazard class(es)	3	3	3
14.4 Packing group	II	II	II
14.5 Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.

Additional information

ADR/RID : None identified.

Tunnel code : (D/E)

IMDG : None identified.

IATA : None identified.

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Code : 000001059688

Date of issue/Date of revision

: 20 April 2025

VIGOR ZN 302 SR EVO HARDENER

SECTION 14: Transport information

14.7 Transport in bulk : Not applicable.
 according to IMO
 instruments

SECTION 15: Regulatory information

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

[EU Regulation \(EC\) No. 1907/2006 \(REACH\)](#)[Annex XIV - List of substances subject to authorisation](#)[Annex XIV](#)

None of the components are listed.

[Substances of very high concern](#)

Intrinsic property	Ingredient name	Status	Reference number	Date of revision
Substance of equivalent concern for human health	ethylenediamine	Recommended	D(2021) 4569-DC	4/12/2023

Annex XVII - Restrictions : Not applicable.
 on the manufacture,
 placing on the market
 and use of certain
 dangerous substances,
 mixtures and articles

[Other national and international regulations.](#)[Explosive precursors](#) : Not applicable.[Ozone depleting substances \(EU 2024/590\)](#)

Not listed.

15.2 Chemical safety assessment : No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 DNEL = Derived No Effect Level
 EUH statement = CLP-specific Hazard statement
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number

Full text of abbreviated H statements : H225 Highly flammable liquid and vapour.
 H226 Flammable liquid and vapour.
 H302 Harmful if swallowed.
 H304 May be fatal if swallowed and enters airways.
 H311 Toxic in contact with skin.
 H312 Harmful in contact with skin.
 H314 Causes severe skin burns and eye damage.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.
 H319 Causes serious eye irritation.
 H332 Harmful if inhaled.
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Code : 000001059688	Date of issue/Date of revision : 20 April 2025
VIGOR ZN 302 SR EVO HARDENER	

SECTION 16: Other information

H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Full text of classifications [CLP/GHS]	
Acute Tox. 3	ACUTE TOXICITY - Category 3
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Resp. Sens. 1B	RESPIRATORY SENSITISATION - Category 1B
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Corr. 1C	SKIN CORROSION/IRRITATION - Category 1C
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
Skin Sens. 1B	SKIN SENSITISATION - Category 1B
STOT RE 1	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

History

Date of issue/ Date of revision	: 20 April 2025
Date of previous issue	: 9 October 2024
Prepared by	: EHS
Version	: 4.04

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by us, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.