

MSDS- VOGA FEX-EPX

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VOGEL SYSTEMS Safety data sheet

Date /Revised: 19.09.2022

Product: **MSDS- VOGA FEX-EPX**

Version: 1.0

Date of print 20.09.2022

1. Identification

Product identifier

VOGA FEX-EPX

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

Relevant identified uses: Product for construction chemicals Recommended use: for industrial and professional users



Details of the supplier of the safety data sheet

E-mail address: info@vogel-systems.de

Emergency telephone number

International emergency number

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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**1. Product identifier****Product name** **VOGA FEX-EPX****2. Relevant identified uses of the substance or mixture and uses advised against****Identified uses** : **Epoxy resin chemical resistant tile grout****Supplier**

Company name : Vogel co.

3. Details of the supplier of the safety data sheetE-mail address: info@vogel-systems.de**2. COMPOSITION/INFORMATION ON INGREDIENTS****GHS Classification**

Skin Corrosion/Irritation (Category 2)

Serious Eye Damage/Irritation (Category 1)

Skin Sensitization (Category 1)

Specific Target Organ Toxicity — Single Exposure (respiratory irritation) (Category 3)

Signal word: Danger**Pictograms:**

GHS05 (Corrosion) • GHS07 (Exclamation) • GHS09 (Environment, if packaged in volume > 5 L)

Hazard statements:

H315 Causes skin irritation

H318 Causes serious eye damage

H317 May cause an allergic skin reaction

H335 May cause respiratory irritation

Precautionary statements:

P261 Avoid breathing vapours/mists.

P264 Wash thoroughly after handling.

P280 Wear protective gloves/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P310 Immediately call a POISON CENTER or doctor/physician.

3. COMPOSITION

Component	CAS No.	Concentration (% w/w)	Classification
Bisphenol A-epoxy resin	6-38-25068	70–50	Skin Irrit. 2; Skin Sens. 1
Epoxy novolac resin	4-14-28064	20–10	Skin Irrit. 2; Eye Irrit. 2
Polyamine curing agent (proprietary)	Confidential I	15–10	Skin Corr. 1B; Skin Sens. 1
Fumed silica (thickener)	-52-112945 5	10–5	Not classified
Inert fillers (coloured pigments)	—	balance	Not classified

4. FIRST AID MEASURES**Inhalation**

Remove victim to fresh air and keep at rest in a position comfortable for breathing.

If irritation, coughing or breathing difficulty persists, seek medical attention.

Skin Contact

Immediately remove contaminated clothing and shoes.

Wash affected skin thoroughly with plenty of soap and water for at least 15 minutes.

If irritation or rash develops, get medical advice.

Launder clothing before reuse.

Eye Contact

Rinse cautiously with clean, gently flowing water for at least 15 minutes, lifting both upper and lower lids.

Remove contact lenses if present and easy to do, then continue rinsing.

Seek prompt ophthalmological evaluation.

Ingestion

Rinse mouth with water.

Do **not** induce vomiting.

If the person is conscious, give small sips of water.

Obtain medical attention immediately.

Notes to Physician

Treat symptomatically and supportively.

No specific antidote exists.

Monitor for respiratory irritation; administer humidified oxygen if needed.

5. FIRE FIGHTING MEASURES**Suitable Extinguishing Media**

- Dry chemical powder (ABC)
- Carbon dioxide (CO₂)
- Alcohol-resistant foam
- Water spray or fog

Unsuitable Extinguishing Media

- Do **not** use direct, high-pressure water jets (may spread burning material).

Specific Hazards Arising from the Chemical

- Although the cured grout is non-combustible, uncured resin and hardener components can burn.
- In fire, may generate:
 - Carbon monoxide (CO)
 - Carbon dioxide (CO₂)
 - Nitrogen oxides (NO_x)
 - Irritating and toxic fumes

Special Protective Equipment and Precautions for Fire-fighters

- Wear full structural firefighting gear (turnout coat, pants, gloves, helmet, boots).
- Use self-contained breathing apparatus (SCBA) with full facepiece.
- Cool storage containers and adjacent areas with water spray to prevent rupture or pressure build-up.
- Approach fire from upwind and keep out of low-lying areas where vapours may collect.

Additional Information

- Fire-fighting runoff may be contaminated—collect and dispose of according to local environmental regulations.
- Prevent extinguishing media from entering drains or waterways.

6. ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Evacuate non-essential personnel and ventilate the area.

Avoid inhalation of vapours or dust from the resin or hardener.

Wear chemical-resistant gloves (e.g. nitrile), impermeable protective clothing, and splash-resistant goggles.

If airborne concentrations are high, use an organic-vapour/particulate respirator.

Environmental Precautions

Prevent the uncured mixture from entering drains, sewers, surface water or soil.

If the product does enter waterways, inform local authorities according to regulations.

Methods for Containment

For liquid spills, contain with inert absorbent material (e.g. sand, vermiculite).

For dust (from trimming or grinding cured material), avoid creating dust clouds—use vacuum equipped with a HEPA filter.

Methods for Cleanup**Resin/Hardener Liquids:**

Dike and absorb with inert material.

Scoop or shovel into a suitable, labeled chemical waste container for disposal (see Section 13).

Cured Material Dust/Chips:

Sweep or vacuum with HEPA-equipped vacuum.

Place in sealed container and dispose as non-hazardous solid waste if fully cured.

Final Cleaning:

Wash the spill area with water and a mild detergent to remove any residue; collect rinse water for proper disposal.

References

See **Section 8** for personal protective equipment.

See **Section 13** for waste disposal considerations.

7. HANDLING AND STORAGE**Handling**

- Use only in well-ventilated areas to avoid vapour or mist accumulation.
- Minimise skin and eye contact – wear nitrile or neoprene gloves, chemical-resistant apron, and splash-resistant goggles.
- Avoid inhalation of vapours/mists; if exposure levels may exceed limits, use an organic-vapour/particulate respirator.
- Do **not** eat, drink or smoke while handling the product. Wash hands and exposed skin thoroughly after use.
- Mix components only in their original, tightly closed containers; add hardener only to resin—not vice versa—to prevent exothermic runaway.

Storage

- Store resin (Part A) and hardener (Part B) in their original, clearly-labelled containers, tightly sealed.
- Keep in a cool, dry, well-ventilated place away from sources of heat, sparks, open flames or direct sunlight.
- Recommended storage temperature: 5–30 °C.
- Segregate from strong acids, oxidizing agents, and amines to prevent hazardous reactions.
- Do not store near foodstuffs or animal feed.
- Use on a “first in, first out” basis; shelf life is 12 months from date of manufacture when stored correctly.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Parameter	Limit	Source
Bisphenol A-epoxy resin	Not established	—
Polyamine vapour (OEL-TWA)	1 mg/m ³	ACGIH

- **Engineering:** Local exhaust or general ventilation.
- **Respiratory:** If TLV exceeded, use organic-vapour/particulate respirator.
- **Eyes:** Chemical splash goggles with side-shields.
- **Skin:** Nitrile or neoprene gloves; long-sleeved protective clothing.
- **Hygiene:** Wash hands before breaks and after work.

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Value
Appearance	Viscous, coloured paste
Odour	Mild amine
pH (mixed)	9–7
Flash point	> 200 °C (PMCC)
Boiling range	Not applicable
Vapour pressure (20 °C)	< 0.1 mm Hg
Solubility	Insoluble in water; soluble in epoxides/esters
Relative density (mixed)	1.5–1.3
Viscosity (mixed)	20,000–50,000 mPa·s (rotational)

10. STABILITY AND REACTIVITY**Chemical Stability**

- Both resin (Part A) and hardener (Part B) are stable under normal storage and handling conditions (5–30 °C, dry, ventilated).

Possibility of Hazardous Reactions

- Hazardous polymerization will not occur in unmixed components.
- Once resin and hardener are combined, exothermic curing occurs—do not mix large batches or overheat.

Conditions to Avoid

- Excessive heat (> 50 °C) or direct sunlight (may degrade components).
- Prolonged exposure to moisture or humidity (Part B is moisture-sensitive).
- Mixing resin into hardener (always add hardener to resin to control heat).

Incompatible Materials

- Strong oxidizers (e.g., peroxides, nitrates)
- Strong acids (e.g., hydrochloric, sulfuric)
- Amines or other curing agents (outside specified formulation)
- Reactive metals (e.g., sodium, potassium)

Hazardous Decomposition Products

- On overheating or in fire: carbon monoxide (CO), carbon dioxide (CO₂), nitrogen oxides (NO_x), irritating amine vapours.
- Incomplete combustion may yield trace aldehydes or phenolic fragments.

Note: Always ensure good housekeeping to prevent mixed residues from accumulating, and follow recommended batch sizes to minimize uncontrolled exotherms.

11. TOXICOLOGICAL INFORMATION**Acute Toxicity**

Oral (rat): LD₅₀ > 2,000 mg/kg (resin and hardener components non-acutely toxic at expected exposure levels).

Dermal (rabbit): LD₅₀ > 2,000 mg/kg.

Skin Corrosion/Irritation

Resin (Part A): Category 2 skin irritant – causes reversible inflammation.

Hardener (Part B): Category 1B corrosive – can cause full-thickness skin burns.

Serious Eye Damage/Irritation

Hardener (Part B): Category 1 – causes serious eye damage.

Resin: Category 2 – causes eye irritation.

Respiratory or Skin Sensitization

Hardener (amine): Skin Sensitizer Category 1 – may cause allergic skin reactions.

Resin: Not classified as a sensitizer.

Specific Target Organ Toxicity – Single Exposure (STOT-SE)

Category 3 – May cause respiratory tract irritation if vapors or mists are inhaled in high concentration.

Specific Target Organ Toxicity – Repeated Exposure (STOT-RE)

Not classified – no data indicating target-organ toxicity from repeated exposures at expected use levels.

Carcinogenicity

Not listed by IARC, NTP, OSHA, or EU as carcinogenic.

Mutagenicity/Genotoxicity

Negative in standard in vitro bacterial mutation assays and in vivo micronucleus tests.

Reproductive Toxicity

Not classified – no evidence of adverse reproductive effects in available studies.

Aspiration Hazard

Not relevant (non-volatile, non-aspirable liquid once mixed).

Note: Users should avoid prolonged or repeated skin contact with mixed epoxy to minimize risk of dermatitis; always use recommended PPE.

12. ECOLOGICAL INFORMATION

- **Aquatic Toxicity**
 - Fish (96 h LC₅₀):** 10–100 mg/L (hardener component)
 - Daphnia magna (48 h EC₅₀):** 1–10 mg/L (hardener component)
 - Algae (72 h ErC₅₀):** 10–100 mg/L (mixed product)
- **Persistence and Degradability**
 - Resin and cured material:** Not readily biodegradable; forms an inert, cross-linked network.
 - Hardener (amine):** Moderately biodegradable under aerobic conditions (expected BOD/COD ratio < 0.3).
- **Bioaccumulative Potential**
 - Log K_{ow} (mixed):** < 3; low potential for bioaccumulation.
- **Mobility in Soil**
 - Mixed/cured:** Immobile; adheres to sediment and soil particles.
 - Uncured components:** Limited solubility; slight leaching of amine residues possible in long-term exposure.
- **Other Adverse Effects**
 - Mixture pH:** Alkaline runoff (pH 9–11) may transiently raise local water pH—neutralize before discharge.
 - Not classified** as PBT or vPvB under REACH criteria.

Prevent release of uncured material to the environment. Collect and cure spills for disposal (see Section 6), and avoid wash-off to drains or waterway

13. DISPOSAL CONSIDERATIONS

- **Waste Treatment Methods**
- **Uncured Material:** Collect and allow to fully cure (harden) in a well-ventilated area away from drains. Once cured, dispose of as non-hazardous solid waste.
- **Liquid Resin or Hardener:** Absorb spills with inert material (e.g., sand, vermiculite) and transfer to properly labeled, impervious containers for incineration at a licensed facility.
- **Mixed (Uncured) Slurry:** Permit to cure; then collect and dispose of cured solid as non-hazardous waste.
- **Cleaning Solvents or Rinseates:** Collect wash water or solvents used for cleanup and manage as hazardous waste per local regulations.
- **Contaminated Packaging**

Empty containers retain residual resin or hardener. Do **not** reuse.

Triple-rinse with water or an appropriate solvent; collect rinseate as hazardous waste.

Dispose of rinsed containers through a licensed recycling or waste-management facility.

- **Regulatory Considerations**

Follow Law No. 4/1994 and any local hazardous-waste regulations.

Comply with transport regulations if shipping off-site for disposal (see Section 14).

Ensure all waste manifests and disposal records meet national and regional requirements.

14. TRANSPORT INFORMATION

Mode	UN Number	Proper Shipping Name	Class	Packing Group
Road/Rail (ADR)	UN 2735	Amines, liquid, corrosive, n.o.s. (Part B)	8	III
Sea (IMDG)	UN 2735	Amines, liquid, corrosive, n.o.s.	8	III
Air (IATA)	UN 2735	Amines, liquid, corrosive, n.o.s.	8	III

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15. Regulatory Information

- **GHS Labeling (Egypt & EU)**
- **Signal word:** Danger
- **Pictograms:**
 - GHS05 (Corrosion)
 - GHS07 (Exclamation)
 - GHS09 (Environment, if volume > 5 L)
- **Hazard Statements:**
 - H315 Causes skin irritation
 - H317 May cause an allergic skin reaction
 - H318 Causes serious eye damage
 - H335 May cause respiratory irritation
- **Precautionary Statements:** P261, P264, P280, P302 + P352, P305 + P351 + P338, P333 + P313, P310
- **European Union**

REACH (EC 1907/2006): All components pre-registered or registered.

CLP (EC 1272/2008): Resin and hardener classified as Skin Irrit. 2, Skin Sens. 1, Eye Dam. 1, STOT SE 3.

VOC Directive (2004/42/EC): Product contains < 50 g/L VOC when mixed.
- **United States**

TSCA Inventory: All components listed.

OSHA Hazard Communication Standard (29 CFR 1910.1200): Hazardous chemical.

CERCLA/SARA:
 - SARA 311/312: Acute health hazard.
 - SARA 313: Hardener component contains reportable amines.
- **Egypt**

Environmental Law No. 4/1994 & Amendments: Chemical waste classification and disposal requirements.

GHS Alignment: Adopted GHS Rev. 6 for classification and labeling.

Label Approval: Must be approved by the Ministry of Industry & Trade.
- **Other Jurisdictions**

Canada (DSL/NDSL): All ingredients DSL-listed.

Australia (AICS): All ingredients listed.

China (IECSC): All ingredients listed.

Japan (ENCS): All ingredients listed.

Note: Users must ensure compliance with any additional, country-specific regulations and update labels/SDS as regulations evolve.

16. OTHER INFORMATION

DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.