

MSDS- VOGAPROTECT PU

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VOGEL SYSTEMS Safety data sheet

Date /Revised: 19.09.2022

Product: **MSDS- VOGAPROTECT PU**

Version: 1.0

Date of print 20.09.2022

1. Identification

Product identifier

VOGAPROTECT PU

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 **VOGAPROTECT PU****2. Relevant identified uses of the substance or mixture and uses advised against**Identified uses : **two component polyurethane uv-resistance protective coating****3. Details of the supplier of the safety data sheet**Supplier

Company name : Vogel co.

E-mail address: info@vogel-systems.de**2. COMPOSITION/INFORMATION ON INGREDIENTS****GHS Classification:****Flammable Liquid** – Category 3**Skin Irritation** – Category 2**Eye Irritation** – Category 2A**Respiratory Sensitization** – Category 1**Specific Target Organ Toxicity (Single Exposure)** – Category 3 (Respiratory tract irritation)**Signal Word:** ☐ ☐ **Danger****Hazard Statements:****H226:** Flammable liquid and vapor**H315:** Causes skin irritation**H317:** May cause an allergic skin reaction**H319:** Causes serious eye irritation**H334:** May cause allergy or asthma symptoms or breathing difficulties if inhaled**H335:** May cause respiratory irritation**Precautionary Statements:****P210:** Keep away from heat/sparks/open flames/hot surfaces – No smoking**P233:** Keep container tightly closed**P261:** Avoid breathing vapors or spray**P271:** Use only outdoors or in a well-ventilated area**P280:** Wear protective gloves/protective clothing/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**P312:** Call a POISON CENTER or doctor if you feel unwell**P403 + P235:** Store in a well-ventilated place. Keep cool**P501:** Dispose of contents/container in accordance with local regulations**Other Hazards:**

Vapors may form explosive mixtures with air in unventilated areas

Prolonged or repeated contact may cause skin sensitization or asthma-like symptoms

3. COMPOSITION**Component A (Polyol Base)**

Substance	CAS Number	% by Weight	Classification (GHS)
Acrylic/Polyester Polyol	Proprietary	%60–40	Not classified
Xylene	7-20-1330	%10>	Flam. Liq. 3, Acute Tox. 4, Skin Irrit. 2, STOT SE 3
Additives and Pigments	Various	Balance	May include irritants or sensitizers

Component B (Isocyanate Hardener)

Substance	CAS Number	% by Weight	Classification (GHS)
Aliphatic Isocyanate	Proprietary	%40–20	Skin Sens. 1, Resp. Sens. 1, Eye Irrit. 2A
Solvent Naphtha (light)	6-95-64742	%10>	Flam. Liq. 3, STOT SE 3, Asp. Tox. 1

4. FIRST AID MEASURES**General Advice:**

- Take proper precautions to avoid further exposure.
- Show this Safety Data Sheet to the medical personnel attending the exposed individual.

Inhalation:

- Remove person to fresh air immediately.
- Keep them at rest in a position comfortable for breathing.
- If symptoms (e.g., coughing, shortness of breath, dizziness) persist: **seek medical attention.**

Skin Contact:

- Immediately remove contaminated clothing and wash skin thoroughly with **soap and water.**
- Do **not** use solvents to clean the skin.
- If irritation or allergic reaction (rash, redness, itching) occurs: **get medical advice/attention.**

Eye Contact:

- Rinse cautiously with **clean water** for at least **15 minutes**, holding eyelids apart.
- Remove contact lenses if present and easy to do.
- Continue rinsing and seek **immediate medical attention.**

Ingestion:

- Rinse mouth thoroughly with water.
- Do **not** induce vomiting.
- Never give anything by mouth to an unconscious person.
- Seek **immediate medical assistance** and show the product label or SDS.

Most Important Symptoms and Effects (Acute and Delayed):

- **Skin:** Redness, dryness, itching, rash (potential sensitizer)
- **Eyes:** Burning, redness, blurred vision
- **Inhalation:** Coughing, wheezing, shortness of breath, dizziness
- **Chronic Exposure:** May lead to **respiratory sensitization** or skin allergy with repeated or prolonged contact (particularly from isocyanate exposure)

Advice for Physicians:

- Treat symptomatically.
- Watch for delayed onset of **asthma-like symptoms** after inhalation exposure to isocyanates.

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

- **Foam** (alcohol-resistant preferred)

Dry chemical powder

- **Carbon dioxide (CO₂)**
- **Water spray** (for cooling only — not directly on flames)

Unsuitable Extinguishing Media:

- Do **not** use direct water jets — may spread flammable material or cause splashing.

Specific Hazards Arising from the Substance or Mixture:

- **Flammable liquid and vapor** — vapors may form **explosive mixtures with air**, especially in confined or poorly ventilated spaces.
- Combustion may produce hazardous gases:
 - Carbon monoxide (CO)**
 - Carbon dioxide (CO₂)**
 - Nitrogen oxides (NO_x)**
 - Isocyanates** (from Component B)
 - Irritating organic vapors

Firefighter Protection:

- Use **self-contained breathing apparatus (SCBA)** and full **fire-resistant protective gear**.
- Fight fire from a safe distance and **upwind** position.
- Cool containers with water spray to prevent rupture from pressure buildup.
- Prevent contaminated runoff from entering sewers, drains, or waterways.

Additional Notes:

- Sealed containers exposed to heat may rupture due to pressure buildup.
- Product residues may reignite even after fire is extinguished — ensure thorough cooling and inspection.

6. ACCIDENTAL RELEASE MEASURES**Personal Precautions, Protective Equipment, and Emergency Procedures:**

- Evacuate non-essential personnel from the area.
- Eliminate all ignition sources — **no smoking, sparks, or open flames**.
- Ensure adequate ventilation.
- Avoid inhalation of vapors and contact with skin or eyes.
- Wear appropriate **PPE**: chemical-resistant gloves, protective clothing, eye protection, and organic vapor respirator if necessary.

Environmental Precautions:

- **Do not allow product to enter drains, sewers, or natural watercourses.**
- In case of large spills, notify local environmental authorities immediately.

Methods and Materials for Containment and Cleaning Up:

- **Contain the Spill:**
 - Dike or contain the area using sand or other inert materials.
- **Absorb and Collect:**
 - Use inert absorbent materials (e.g., sand, vermiculite, diatomaceous earth).
 - Scoop or shovel absorbed material into **properly labeled containers** for disposal.
- **Clean the Area:**
 - Clean remaining residue using a detergent solution and water.
 - Avoid using solvents, especially on isocyanate-containing residues (Component B).

Disposal:

- Dispose of all waste and contaminated materials in accordance with **local, regional, and national regulations** (see Section 13).

Special Notes:

- Spilled Component B (Isocyanate) may react with moisture and release CO₂ gas, which can cause pressure buildup in closed containers. Handle with caution.

7. HANDLING AND STORAGE**Precautions for Safe Handling:**

- Use only in **well-ventilated** areas.
- Avoid **inhalation** of vapors or spray mist.
- Avoid contact with **skin, eyes, and clothing**.
- Do not eat, drink, or smoke while using this product.
- Ground/bond containers and equipment during transfer to avoid **static discharge**.
- **Wear appropriate PPE** (gloves, goggles, protective clothing).
- Handle Component B (isocyanate hardener) carefully — avoid moisture contamination which can lead to CO₂ release and pressure buildup.

Conditions for Safe Storage (Including Incompatibilities):

- Store in a **cool, dry, well-ventilated** area, away from direct sunlight and heat sources.
- Keep containers tightly **sealed and upright** to prevent leakage.
- **Storage Temperature:** +5°C to +35°C
- Keep away from:
 - Moisture and water (especially for Component B)
 - Strong acids, bases, and oxidizing agents
 - Open flames or sparks

Additional Storage Instructions:

- Store **Component A and Component B separately** until mixing.
- Label containers clearly and store according to hazard classifications.
- Do not reuse empty containers. Even after emptying, they may contain hazardous residues.

Shelf Life:

- Up to **12 months** in unopened containers under recommended storage conditions.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Substance	CAS No.	OSHA PEL
Xylene	7-20-1330	100 ppm (TWA)
Ethylbenzene (if present)	4-41-100	100 ppm (TWA)
Aliphatic Isocyanates	Proprietary	Not established

Engineering Controls:

Provide **adequate general ventilation**.

Use **local exhaust ventilation** to keep airborne concentrations below exposure limits.

In confined or poorly ventilated areas, use **mechanical ventilation** or wear appropriate respiratory protection.

Eye wash stations and **safety showers** should be available near the work area.

Personal Protective Equipment (PPE):**Respiratory Protection:**

Use a **NIOSH-approved respirator** with organic vapor cartridges when airborne concentrations exceed exposure limits.

In cases of high exposure or limited ventilation, use a **full-face or powered air-purifying respirator (PAPR)**.

Eye/Face Protection:

Wear **chemical safety goggles** or a **face shield** where there is risk of splashing or vapor exposure.

Skin Protection:

Wear **chemical-resistant gloves** (e.g., nitrile, butyl rubber).

Use long sleeves or **chemical-resistant coveralls**.

Hygiene Measures:

Wash hands thoroughly after handling.

Remove contaminated clothing immediately.

Do not eat, drink, or smoke in work areas.

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Value
Appearance	Component A: Viscous pigmented liquid
Component B: Clear to pale yellow liquid	
Odor	Mild solvent-like
Odor Threshold	Not determined
pH	Not applicable (non-aqueous)
Melting/Freezing Point	Not determined
Initial Boiling Point/Range	>100°C (for solvent components)
Flash Point	>30°C (Closed Cup)
Evaporation Rate	Slower than n-butyl acetate
Flammability (liquid/gas)	Flammable liquid and vapor
Upper/Lower Flammability Limits	Not determined
Vapor Pressure	Low (depends on temperature and solvent)
Vapor Density	Heavier than air
Relative Density	~1.2–1.4 g/cm ³ (mixture)
Solubility in Water	Insoluble (reacts with water during cure)
Partition Coefficient (n-octanol/water)	Not determined
Auto-Ignition Temperature	Not determined
Decomposition Temperature	Not determined
Viscosity	High – suitable for brush, roller, or spray

10. STABILITY AND REACTIVITY**• Reactivity:**

Product is not reactive under normal handling and storage conditions.

Component B (isocyanate) reacts with moisture to release **CO₂ gas**, which may cause pressure build-up in closed containers.

• Chemical Stability:

Stable under recommended storage conditions (cool, dry, well-sealed containers).

Prolonged exposure to heat, air, or moisture may affect performance or lead to premature curing.

• Possibility of Hazardous Reactions:

May react exothermically with water, alcohols, amines, and acids.

Mixing of Components A and B initiates a **chemical reaction** that leads to curing; ensure correct ratios and use.

• Conditions to Avoid:

Heat, open flames, sparks, and other ignition sources

Contamination with water or moisture

Storage temperatures outside **5°C to 35°C**

• Incompatible Materials:

Strong acids and bases

Amines, alcohols, and water (for isocyanate-containing Component B)

Oxidizing agents

• Hazardous Decomposition Products:

During thermal decomposition or combustion, may release:

Carbon monoxide (CO)

Carbon dioxide (CO₂)

Nitrogen oxides (NO_x)

Isocyanates

Other irritant organic vapors

11. TOXICOLOGICAL INFORMATION**Likely Routes of Exposure:**

- **Inhalation, skin contact, eye contact, and ingestion** (accidental)

Acute Toxicity:

- **Inhalation:** Vapors from solvents and isocyanates may cause **respiratory irritation**, dizziness, drowsiness, or nausea.
- **Skin Contact:** Causes **skin irritation**; may cause **allergic skin reaction** upon repeated exposure.
- **Eye Contact:** Causes **eye irritation**, tearing, redness, and discomfort.
- **Ingestion:** Harmful if swallowed; may cause irritation of the digestive tract.

Skin Corrosion/Irritation:

- **Category 2** – causes skin irritation including redness, dryness, or rash.

Serious Eye Damage/Irritation:

- **Category 2A** – causes eye irritation; prolonged exposure may lead to conjunctivitis.

Respiratory or Skin Sensitization:

- **Skin Sensitization – Category 1:** May cause allergic dermatitis.
- **Respiratory Sensitization – Category 1:** Inhalation of Component B (isocyanates) can lead to **asthma-like symptoms**, especially in sensitized individuals.

Germ Cell Mutagenicity:

- Not classified as mutagenic based on available data.

Carcinogenicity:

- **Xylene** and **ethylbenzene** (if present) are not classified as carcinogenic at typical exposure levels.
- Ethylbenzene is listed by IARC as **Group 2B** (possibly carcinogenic to humans), but the risk is considered low in this formulation.

Reproductive Toxicity:

- No components identified as reproductive toxins under OSHA or REACH guidelines.

12. ECOLOGICAL INFORMATION**• Ecotoxicity:**

The uncured product is **toxic to aquatic life**, especially due to solvent content (e.g., xylene, solvent naphtha). Even in small quantities, spills into watercourses can cause **long-term harm to fish, invertebrates, and aquatic plants**.

• Persistence and Degradability:

Components such as **polyurethane resins and isocyanates** are **not readily biodegradable**.

Once cured, the product becomes an inert solid and poses **minimal environmental mobility** or degradation.

• Bioaccumulative Potential:

Solvent components (e.g., xylene, ethylbenzene) have potential for **bioaccumulation** in aquatic organisms.

However, when the product is properly cured and contained, **risk of environmental release is minimal**.

• Mobility in Soil:

Uncured material may migrate through soil, especially if spilled in liquid form.

Cured product is immobile and chemically stable in soil or landfill environments.

• Other Adverse Effects:

No known **ozone depletion** potential.

Product does not contribute to global warming under normal usage.

Prevent environmental contamination by **controlling spills and disposing of waste properly** (see Section 13).

13. DISPOSAL CONSIDERATIONS**Product Disposal:**

- Dispose of **uncured or excess mixed product** as **hazardous waste** according to local, regional, or national regulations.
- Do **not pour into drains**, watercourses, or onto soil.
- Do **not incinerate in open air**.

Cured Product:

- Fully cured material is generally considered **non-hazardous** and may be disposed of as **solid industrial waste**, subject to local rules.
- Ensure it is fully hardened before disposal to prevent leaching of harmful substances.

Methods of Disposal:

- Preferred method: **incineration** in a licensed facility for hazardous chemical waste.
- Containers with residues must also be treated as hazardous waste.
- Never dispose of via domestic waste systems.

Contaminated Packaging:

- Do **not reuse** empty containers.
- Containers may retain hazardous residue — handle and dispose of as if they are full.
- Rinse and triple-wash only if permitted by local regulations; otherwise, dispose without washing.

14. TRANSPORT INFORMATION

Parameter	Details
UN Number	1263
Proper Shipping Name	Paint or Paint Related Material
Transport Hazard Class	3 – Flammable Liquid
Packing Group	III – Minor danger
Environmental Hazards	Not classified as a marine pollutant (unless otherwise specified)

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- **Land Transport (ADR/RID):**

UN 1263, Class 3, PG III

Label: Flammable Liquid

Tunnel Restriction Code: D/E

- **Sea Transport (IMDG):**

UN 1263, Class 3, PG III

EmS: F-E, S-E

Marine Pollutant: **No**, unless stated for specific pigment or solvent types

- **Air Transport (IATA/ICAO):**

UN 1263, Class 3, PG III

Use compliant packaging instructions for flammable liquids

Must not be transported with incompatible substances (e.g., oxidizers)

- **Special Precautions for Transport:**

Keep containers **upright and sealed**.Ensure **adequate ventilation** in transport vehicles.

Label clearly and segregate from oxidizers, foodstuffs, and incompatible materials.

Protect from **extreme temperatures**, direct sunlight, and moisture.**15. Regulatory Information****U.S. Regulations:****OSHA (Hazard Communication Standard – 29 CFR 1910.1200):**This product is classified as **hazardous** — flammable, skin/eye irritant, sensitizer, STOT (single exposure).**TSCA (Toxic Substances Control Act):**All chemical components are either **listed on** or **exempt from** the TSCA Inventory.**SARA Title III (EPCRA):****Section 311/312:** Fire Hazard, Immediate Health Hazard, Delayed Health Hazard**Section 313:****Xylene (CAS 1330-20-7)****Ethylbenzene (CAS 100-41-4)** (if present) — **subject to annual reporting requirements** if concentrations exceed 1%**European Union (EU):****REACH Regulation (EC 1907/2006):**All ingredients are either **registered, pre-registered, or exempt**.

No SVHCs (Substances of Very High Concern) are intentionally present.

CLP Regulation (EC 1272/2008):

This product is classified and labeled in accordance with the Globally Harmonized System (GHS).

Requires appropriate pictograms, hazard statements, and precautionary statements.

Canada (WHMIS 2015):Classified as a hazardous product under the **Hazardous Products Regulations (HPR)**.

Requires bilingual labeling and SDS.

Other Global Inventories:**Australia (AICS), China (IECSC), Japan (ENCS), Korea (KECI):**

All components are listed or comply with inventory requirements.

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