



# emfturtal

Shielding Paint

## Material Safety Data Sheet (TSCA)

According to Regulation (EC) 1907/2006 (REACH) (as amended by Regulation (EU) No. 453/2010)

### emf-protect

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Safety Data Sheet according to Regulation (EC) 1907/2006 Version 07.03.2020

## 01 Identification of the mixtures and of the company

Product identifiers EMF-TURTAL shielding paints PLV 5 (Indoor), PLV 5 AA (Outdoor).  
EMF-TURTAL 5 Liter | 1.32 Gallons (Indoor), EMF-TURTAL 5 Liter | 1.32 Gallons (Outdoor).

### Relevant identified uses of the mixture:

Electrically conductive priming coats and additives.

### Relevant identified uses advised against:

Not suitable for exterior painting on watercrafts, any use other than intended.

### Details of the supplier of the safety data sheet:

**emf-protect** : Kanalstraße 18 ½ : D - 83052 Bruckmühl : Germany.

**Telephone:** +49 (0) 8062 / 62 80 73 0 73 : **Facsimile:** (0) 8062 / 2744 99 2 : **Contact person:** [kunden@abschirmfarbe.eu](mailto:kunden@abschirmfarbe.eu)

**Emergency Call: (Outside the business hours: (08:00 – 17:00 Uhr) Poison emergency call Berlin, consultation in the german and english language) Telephone: +49 (0) 30 / 30 686 79 0.**

## 02 Hazards identification

### Classification of the substance or mixture Directive 67/548/EEC or 1999/45/EC and Regulation (EC) No 1272/2008 (GHS):

Mixture is not classified as dangerous within the meaning of Directive 1999/45/EC. Classification according to Regulation (EC) No. 1272/2008 [CLP] Classification according to Regulation (EC) No 1272/2008 [CLP]. The mixture is not classified as dangerous within the meaning of Regulation (EC) No 1272/2008.

### Label elements:

None.

### Other hazards:

None.

### Additional information:

This products are not dangerous concerning the regulation (EC) No. 1272/2008 (CLP) or the directive 1999/45/EC.

— A product of —

**emf**  **protect**

— Made in Germany —

## 03 Composition, information on ingredients

### Chemical characterization

#### Composition:

Ingredient:	CAS No.	Prop. in %
Water (not in PLV products)	7732-18-5	40 – 70 %
Graphite	7782-42-5	25 – 45 %
Graphene	7782-42-5	0,5 – 10 %
<b>Binders:</b>	Acrylpolymeres / CAS-No. 25035-69-2	
Synthetic dispersion	CAS-No. 25035-69-2	10 – 40 %
Preservative (not in PLV products)		0 %
Solvents		0 %

#### Hazardous components:

None. Product does not contain listed SVHC substances.

## 04 First aid measures

#### General:

In case of accident or if you feel unwell, seek medical advice immediately (show operating instructions or safety data sheet if possible). If symptoms occur or in case of doubt, seek medical advice. Remove contaminated clothing immediately.

#### After inhalation:

If symptoms occur, move person to fresh air.

#### If the product irritates the respiratory tract:

Arzt hinzuziehen.

#### After skin contact:

Wash off with soap and water, rinse. Do not use solvents or thinners!

Remove soiled or soaked clothing immediately.

#### After eye contact:

Keep eyelids open. Rinse the eyes for several minutes under running water or treat with eye rinsing solution, then seek medical advice.

#### After ingestion:

Keep at rest. Do not induce vomiting. Drink water in small draught.

When swallowed immediately consult and show packing or label to physician.

#### Most important symptoms and effects, both acute and delayed:

No further relevant information available.

#### Indication of any medical attention and special treatment needed:

None.

## 05 Firefighting measures

#### Suitable extinguishing media:

Carbon dioxide (CO<sup>2</sup>). Dry extinguishing agent. Alcohol-resistant foam. Water spray. „PLV 5“ (Indoor) and „PLV 5 (Outdoor)“ product, like all organic pure substances, is flammable and dust-explosive. Spilled material forms slippery deposits with water.

#### Unsuitable extinguishing media:

None known.

#### Special hazards arising from the substance or mixture:

In the event of a fire: Carbon monoxide. Carbon dioxide (CO<sup>2</sup>). Inhalation of hazardous decomposition products can cause serious damage to health.

#### Advice for firefighters:

Appropriate breathing apparatus may be required.

**Additional information:**

Collect contaminated extinguishing water separately. Do not allow to enter drains or watercourses. Adapt extinguishing measures to the environment.

## 06 Accidental release measures

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**Personal precautions, protective equipment and emergency procedures:**

Refer to protective measures listed in sections 7 and 8. The product produced in combination with water slippery surfaces.

**Environmental precautions :**

Do not empty into drains. Do not allow to enter rivers or lakes.

**Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders). Treat the absorbed material according to section Disposal. Thoroughly clean contaminated objects and surfaces in accordance with environmental regulations.

**Reference to other sections:**

None.

## 07 Handling and storage

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**Information for safe handling: "PLV 5 (Indoor)" and "PLV 5 (Outdoor)"**

Do not store near strong oxidizing agents. Do not work with an open flame near the product. Ensure good ventilation of the room and workplace. Follow legal protection and safety regulations. Keep out of the reach of children. Read the label before use.

**Information about protection against explosions and fires:**

The products are not flammable. „EMF-Turtal PLV 5 (Indoor)“ and „EMF-Turtal PLV 5 (Outdoor)“ dust explosive (ST 1).

**Common preventive fire protection measures.**

Store only in the original container or in containers recommended by the manufacturer. Protect from frost. Keep out of the reach of children.

**Further information about storage conditions :**

**Storage class:** LGK 12 (to VCI-Concept) – Not burnable liquids.

## 08 Exposure controls, personal protection

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**Control parameters:**

None.

**Personal protective equipment:**

Avoid contact with eyes and skin. Do not eat or drink while working – do not smoke. Wash hands before breaks and at the end of work.

**Respiratory protection:**

If the product is processed by brushing or rolling, respiratory protection is not necessary. If the powder is mixed, a dust mask must be worn. Do not inhale spray mist during spray application. Use particle filter P2 (white) when spraying.

**Hand protection:**

**In case of prolonged or often repeated skin contact:** Wear protective gloves. Rubber gauntlets. DIN EN 374.

**Suitable material:**

NBR (nitrile rubber). (0.35 mm); Breakthrough time: > 8 h CR (polychloroprene, chloroprene rubber). (0.5 mm); Breakthrough time: > 8 h butyl rubber. (0.5 mm); Breakthrough time: > 8 h FKM (fluorocarbon rubber). (0.35 mm); Breakthrough time: > 8 h.

**Check for leaks / impermeability before use.****Eye protection:**

Use protection glasses in case of spattering.

**Body protection:**

Using protective clothing. If the product must be sprayed, use protective clothing.

**Additional information about engineering measures:**

Provide good ventilation. This can be achieved by local extraction or general exhaust air. (Observe the information in section 7.)

## 09 Physical and chemical properties

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### Image:

**Form:** "EMF-TURTAL 5 Liter | 1.32 Gallons (Indoor)" und "EMF-TURTAL 5 Liter | 1.32 Gallons (Outdoor)": Liquid.

**Form:** "EMF-Turtal PLV 5 (Indoor)" und "EMF-Turtal PLV 5 (Outdoor)": Powdery.

**Color:** Black.

**Odour:** Typical of the species.

### Relevant safety data:

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**Boiling point:** Not applicable.

**Flash point:** Not applicable.

**Ignition temperature:** Not applicable.

**Vapour pressure:** Not determined.

**Density:** ~ 0.9 g/ml.

**Solubility in water:** suspendable.

**Melting point:** n/a, thermal decomposition from approx. 150°C /only for PLV products

**Solvent separation test:** Not applicable.

**Solvent content for all products:** 0 %.

**PH-value:** aqueous suspension neutral.

**VOC value:** See technical data sheet, max. 0.2 g/l.

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### Other information:

None.

## 10 Stability and reactivity

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### Reactivity :

„EMF-TURTAL PLV 5 (Indoor)" and „EMF-TURTAL PLV 5 (Outdoor)" dust explosive (ST 1). May react with strong oxidizing agents in exothermic reaction. Like all organic substances, the product must be kept away from open flames, ignition sources and strong oxidizing agents. „EMF-TURTAL 5 Liter | 1.32 Gallons (Indoor)" and „EMF-TURTAL 5 Liter | 1.32 Gallons (Outdoor)". Stable when stored and handled as directed.

### Chemical stability:

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

### Possibility of hazardous reactions:

"EMF-TURTAL PLV 5 (Indoor)" and "EMF-TURTAL PLV 5 (Outdoor)"

May react with strong oxidizing agents in exothermic reaction.

### Conditions to avoid:

Keep away from frost, heat and direct sunlight.

### Incompatible materials:

No dangerous reaction known. Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

### Hazardous decomposition products:

If handled and stored properly, no dangerous decomposition products are known to us. Dangerous decomposition products such as carbon dioxide, carbon monoxide, smoke, nitrogen oxides or dense, black smoke can occur at high temperatures or in the event of fire.

## 11 Toxicological information

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### Information on toxicological effects:

There are no data available.

### Acute toxicity:

On the basis of the available data, the classification criteria are not met.

### Irritant and corrosive effect:

On the basis of the available data, the classification criteria are not met.

### Irritant effect on skin:

Non-irritant.

### Irritant effect on the eye:

Non-irritant.

**Specific target organ toxicity at single exposure:**

On the basis of the available data, the classification criteria are not met.

**Severe effects after repeated or prolonged exposure:**

On the basis of the available data, the classification criteria are not met.

**Carcinogenic, mutagenic and reprotoxic effects:**

On the basis of the available data, the classification criteria are not met.

**Danger of aspiration:**

On the basis of the available data, the classification criteria are not met.

**Specific effects in animal experiments:**

No data available.

**Practical experience:**

These products are not to be expected to have any harmful effects on health if handled properly, taking into account occupational hygiene measures.

**Further information on toxicology:**

No toxicological relevance; statement based on test results of the individual components in accordance with the ChemG. According to our experience and the information available to us, the products do not cause any harmful effects on health when handled and used properly.

**Sensitisation:**

No sensitizing effect known.

## 12 Ecological information

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**Toxicity:**

No acute or chronic damage to water organisms by the product in water bodies is to be expected. In case of contact with ecosystems no negative effects are to be expected; statement based on test results of the individual components according to the requirements of the ChemG. Nevertheless, the introduction of the product as foreign substance into surface waters is to be avoided.

**Persistence and degradability:**

In sewage treatment plants, the product is easily eliminated by adsorption on activated sludge. No adverse effects known in biological wastewater treatment plants.

**Bioaccumulative potential:**

These are not data available.

**Mobility in soil:**

These are not data available.

**Results of PBT and vPvB assessment:**

Ingredients in this preparation do not meet the criteria for classification as PBT or vPvB.

**Other adverse effects:**

These are not data available.

**Additional information:**

Avoid exposing into ground, waterways and drainage. The product is evaluated according the method of 1999/45/EC and is not classified as harmful for the environment but contents components which are harmful for the environment. (See sections 2 and 3 for details).

## 13 Disposal considerations

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**Waste treatment methods:**

Packaging with not dried residues have to be dropped at official collecting sites. Do not empty into waters or drains. Packaging with dried residues can be disposed together with household garbage or building site garbage.

**Waste key:**

Disposal-definition No. (AVV-Code): 08 01 12 Paint and varnish waste with the exception of the ones who come under 08 01 11

**Contaminated packaging:**

Contaminated packaging must be emptied of all residues and, following appropriate cleaning, may be sent to a recycling plant. Uncleaned packaging must be disposed of in the same manner as the medium.

## 14 Transport information

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**UN number:**

Does not constitute a hazardous substance in national / international road, rail, sea and air transport.

**UN proper shipping name:**

Does not constitute a hazardous substance in national / international road, rail, sea and air transport.

**Transport hazard class(es):**

Does not constitute a hazardous substance in national / international road, rail, sea and air transport.

**Packing group:**

Does not constitute a hazardous substance in national / international road, rail, sea and air transport.

**Environmental hazards :**

Does not constitute a hazardous substance in national / international road, rail, sea and air transport.

**Special precautions for user:**

None.

## 15 Regulatory information

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**15.1 National regulatory information:**

No flammable liquid according to BetrSichV. VbF-class (till 31.12.2002): The product is not subject to the ordinance.

**Water pollution classification:**

**Water hazard class:** 1 – weakly water hazardous, classification according to VwVwS.

**Other regulations:**

The mixture is not classified as dangerous according to Regulation (EC) No 1272/2008 [GHS] and the preparation is not classified as dangerous according to Directive 1999/45/EC. Not subject to 96/82/EC. According to the criteria of the penetrometer procedure (ADR, Part 2, Section 2.3.4), the products are regarded as solid substances and thus also fulfil the criteria for solid substances according to TRwS 779, Item 2.1.1.

**15.2 International regulatory information:**

In accordance with the EU guideline 2004/42/EC: Product subcategory and VOC limiting values in accordance with appendix II, letter A of the guideline: Category a, type Wb; VOC limiting value of the category for 2010: 30 g/l. This products contain max. 0,2 g/l VOC.

## 16 Further information

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Product code in accordance with GISBAU for colours and varnishes (GIS-CODE): **M-DF01**.

**Further information:**

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*To the best of our knowledge, the information in this safety data sheet corresponds to our knowledge at the time of printing. The information in this safety data sheet is intended to provide you with information for the safe handling of the product specified in this safety data sheet during storage, processing, transport and disposal. The information is not transferable to other products. Insofar as the product is mixed, mixed or processed with other materials or undergoes processing, the information in this safety data sheet cannot be transferred to the new material produced in this way, unless expressly stated otherwise.*

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