

## SAFETY DATA SHEET

4200300 | PLM M- injection mortar

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# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Product name:** P L M - M

**Preparation use:** injection mortar based on lime

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

Distributor: Deffner & Johann GmbH  
address: Mühläckerstr. 13, 97520 Rötthlein, Germany  
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## 2. Composition/information on ingredients

The preparation is an injections mortar, composed of slaked hydraulic lime, micronized quartz, inorganic binders and a little percentage of organic resinoid binders.

**Dangerous components (dir. 67/548/EEC and further changes and integrations)**

- quartz (micronized)	CAS 14808-60	EC 238-878-4
hazard symbols: Xn	harmful	
risk phrases: R 20	harmful by inhalation	
concentration: 40-50% p/p		
- hydrated calcium (hydraulic lime)	CAS 1305-62-0	EC 215-137-3
hazard symbols: Xi	irritating	
risk phrases: R 41	risk of serious damage to eyes	
R 36/37/38	irritating to eyes, respiratory system and skin	
concentration: 40-50% p/p		

## 3. Hazards identification

According to the European Directive 1999/45/EC this product is labelled as hazardous for health in case of inhalation because of its harmfulness and its irritant power.

**Risks due to its chemical-physical properties**

In aqueous solution, the product presents alkaline reaction.

**Risks for health**

Exposure to this product irritates eyes, mucosas, skin, first respiratory tract, even seriously, depending on duration and frequency.

Prolonged inhalation of fine powders can cause irreversible lung disease.

**Risks for environment**

This product can alter surface water pH and change the optimum conditions for aquatic organisms life.

## 4. First aid measures

**After inhalation**

Prolonged dust inhalation causes cough, respiratory tract irritation, headache, nausea.

Move persons away from the area contaminated by vapours and keep them rested in a clean and warm place.

If breathing is difficult, seek medical assistance.

### ***After contact with skin and eyes***

If symptoms persist, seek medical assistance.

Skin and mucosas frequent contact can cause even serious irritations and dermatitis. In this circumstance:

- immediately remove contaminated clothing,
- wash away the product with soap and plenty of water.

Eye contact causes rash, lachrymation, burns, irritation and even serious lesions. In this circumstance:

- remove contact lens (if worn by the victim),
  - keeping eyelids open, wash away the product from eyes with plenty of water (if possible lukewarm) as quickly as possible.
- Go on washing for at least 15 minutes.

### ***After ingestion***

Ingestion can cause irritation and ulceration in the mouth and in the esophagus, abdominal pains, vomiting.

Rinse oral cavity with plenty of water.

Do not induce vomiting. Do not give alcohol or stimulants, without medical advice.

If symptoms persist, seek medical assistance.

Give nothing by mouth, if victim is unconscious.

## **5. Fire-fighting measures**

The product is not flammable, not combustive and it does not participate in a possible combustion.

### ***Suitable extinguishing media***

Water spray, powders, carbon dioxide (CO<sub>2</sub>), foam.

Cool containers exposed to the fire with water.

### ***Unsuitable extinguishing media for safety reasons***

Use no water jets directly on the product.

### ***Possible physical risks of exposition due to the product, the combustion products, and the resulting gases***

The product, at high temperature, produces acrid and hot smokes containing silicon and calcium oxide.

### ***Special protective equipment for fire-fighting***

No special measures required. Take precautions as regards fire causes.

## **6. Accidental release measures**

### ***Person-related safety precautions***

Wear personal protective equipment to avoid skin and eye contact and inhalation of product.

Turn away the present persons who are not authorized for intervention operations.

Reduce the forming of powders as much as possible.

### ***Measures for environmental protection***

Stop the product release (if this intervention is not a danger for workers).

Avoid water contamination, damming losses with earth or sand.

Pick up losses with dry mechanical media or with dry-suction and place them into closed containers suitable for disposal or reutilization.

### ***Methods for cleaning up***

Sweep and then, if necessary, wash with water the contaminated area (taking care that wash water does not contaminate layers, streams or soil).

## **7. Handling and storage**

### ***Handling***

Use only in well-ventilated areas or in places with a located suction system.

Avoid or reduce the forming of powders as much as possible.

Adopt normal cautious actions of good working practice.

Whilst using, do not eat or smoke. Wash hands carefully after its use.

### **Storage**

Keep in closed containers, in dry places sheltered from atmospheric agents.

Keep away from acid substances.

## **8. Exposure controls and personal protection**

### **Exposure limit values**

For workplaces such as TLV-TWA, ACGIH (ed. 2002) suggests the following values:

quartz (breathable powders)	0,1	mg/ m <sup>3</sup>
hydraulic lime	5	mg/ m <sup>3</sup>
total powders	10	mg/ m <sup>3</sup>

### **Respiratory protection**

Respiratory protection has to be realized with technical precautions in order to avoid the contact between worker and product. For example, it can be realized a located extraction system (fixed or mobile) which directs organic vapours into a suitable filtration or demolition plant.

If personal respiratory protection is necessary, use only *D.P.I.* provided with producer's CE conformity declaration, CE branding and informative report.

*D.P.I.* for powders and aerosols filtering can consist of P2 filter masks with white band or of FFP2 *semi-facial filters*.

### **Hand protection**

Use protective gloves (waterproof and resistant to basicity, if product is used wet).

### **Eye protection**

Use protective mask goggles.

### **Skin protection**

Use complete protective clothing.

## **9. Physical and chemical properties**

<i>appearance:</i>	white – greyish powder.
<i>odour:</i>	characteristic
<i>pH (in water):</i>	11 approx.
<i>boiling point:</i>	N.A.
<i>flash point:</i>	N.A.
<i>flammability:</i>	N.A.
<i>auto-ignition temperature:</i>	N.A.
<i>explosive danger:</i>	N.A.
<i>combustive property:</i>	N.A.
<i>vapour pressure:</i>	N.A.
<i>relative density:</i>	1.4 gr/cm <sup>3</sup>
<i>solubility in water:</i>	< 1 %
<i>solubility in fats:</i>	not soluble
<i>solubility in organic solvents:</i>	not soluble
<i>distribution coefficient (n-octanol/water):</i>	N.D.

Legend:

**N.D.** = not determined

**N.A.** = not applicable

## 10. Stability and reactivity

### **Conditions to avoid**

In normal conditions the product is stable.

### **Materials to avoid**

The product is incompatible with strong oxidizers and strong acids because it reacts violently with them. In the presence of water, lime etches many metals, liberating hydrogen (a flammable gas).

### **Hazardous decomposition products**

Hydrogen for reaction with metals. Calcium oxide and silicon oxide for strong heating.

## 11. Toxicological information

Quartz (silica) is considered as a possible cancerogenic for men by NIOSH and IARC (group 2a).

### **Exposure for inhalation**

Inhalation of powders and aerosols (depending on duration and quantity) can cause cough, difficulty in breathing, headache and even serious irritation of respiratory tract.

Quartz may cause long-term serious and incurable effects in lungs, causing fibrosis (silicosis).

### **Exposure for ingestion**

The ingestion of product (an improbable fact) can cause cough, abdominal pains, vomit, irritation and ulceration of mouth and throat.

### **Exposure for contact with skin and eyes**

The contact of the product with eyes can cause rash, burning, lachrymation, irritation and even serious ocular lesions. Frequent and prolonged contacts with skin are irritant and they can cause dermatitis.

## 12. Ecological information

This product is not classified as a Hazardous Material for environment; many of its components are natural constituents of soil. It is not soluble in water and tends to settle on the bottom of streams, rivers and lakes, therefore it is characterized by lack of mobility and high persistence.

Because of its basicity, the product can alter surface water pH.

Product has a predominant inorganic nature and it is neither biodegradable nor *biocumulative*.

Use following good working practice and avoid dispersing the product in environment.

Advise competent authorities if the product has reached streams and/or sewerage systems or it has contaminated soil.

## 13. Disposal considerations

Product rests are classified as hazardous waste.

For disposal, work according to national and regional regulations in force: send rests to authorised centres.

Do not discharge the product, new or used, in sewerage systems, underground passages or streams.

Not decontaminated empty packages have to be considered special waste.

Uncontaminated packages can be recycled or disposed as RSU.

Do not disperse containers in environment.

## 14. Transport considerations

The product is not classified as a hazardous material for road transport, as determined by ADR version 2003.

In any case, the product transport has always to be carried out in integral original packages, prepared with materials which do not react with the content. Persons assigned to product transport have to be suitably instructed in connected risks and in procedures to meet emergencies.

## 15. Regulatory information

### **Information on label**

The product is not the subject of specific EEC Regulations about man and environmental protection.  
The product is hazardous according to the European Directive 88/379/EC and the Italian Legislative Decree n. 65/03.  
Moreover, it is required the application of a hazard label.



**Xn harmful**

Symbols :

The product contains: quartz - hydrated calcium

Risk Phrases (R) :

- harmful by inhalation (R 20)
- irritating to eyes, respiratory tracts and skin (R 36/37/38)
- risk of serious ocular lesions (R 41)

Safety Phrases (S):

- in case of contact with eyes, wash immediately and plentifully with water and seek medical assistance (S26)
- do not breath powders (S 22)
- use only in well ventilated place (S 51)
- protect eyes and face (S 39)
- wear protective clothing and suitable gloves (S 36/37)

### **Other national or EEC Regulations about product use**

It is necessary to refer to the following regulations (where they can be applied):

- Italian D.P.R. 203/1988 "Coming into force of European Directives concerning rules about the quality of air"
- Italian D.Lgs. 626/1994 "Coming into force of European Directives concerning the improvement of workers' safety and health in workplaces".
- Italian D.Lgs. 22/1997 "Coming into force of Directives for waste disposal"
- Italian D.Lgs. 152/1999 "Provisions about water protection against pollution"
- Italian D.Lgs. 334/1999 "Risks of considerable accidents"
- Regulations about compulsory recurring medical examinations.

## 16. Other information

The information provided in this safety data sheet has been found through the consultation of the followings sources:

- SINTALEX 7.1 – Environment and Work Association
- I.S.S. – Hazardous Substances Data Base
- ECDIN – Environmental Chemicals Data and Information Network
- Suppliers' information