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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING.

1.1 Product identifier.

Product Name:PLM - AProduct Code:4200000

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

CONSERVING RESTORATION

Uses advised against:

Uses other than those recommended.

1.3 Details of the supplier of the safety data sheet.

Company: Address: City:	Deffner & Johann GmbH Mühläckerstraße 13 97520 Röthlein
Telephone:	+49 09723 9350-0
E-mail:	info@deffner-johann.de

1.4 Emergency telephone number: +39 0444 349088 (Only available during office hour)

SECTION 2: HAZARDS IDENTIFICATION.

2.1 Classification of the substance or mixture.

In accordance with Regulation (EU) No 1272/2008: Eye Dam. 1 : Causes serious eye damage. Skin Irrit. 2 : Causes skin irritation.

2.2 Label elements.

Labelling in accordance with Regulation (EU) No 1272/2008: Pictograms:



Signal Word:

Danger

Hazard statements: H315 Causes skin irritation. H318 Causes serious eye damage.

Precautionary statements:

P264 Wash your hands thoroughly after handling.

P280 Wear gloves, protective clothing, goggles and a mask.

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

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

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P310	Immediately call a POISON CENTER or to a doctor.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Contains: calcium dihydroxide

2.3 Other hazards.

The mixture does not contain substances classified as PBT. The mixture does not contain substances classified as vPvB. The mixture does not contain any endocrine disrupting properties substances.

In normal use conditions and in its original form, the product itself does not involve any other risk for health and the environment.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS.

3.1 Substances.

Not Applicable.

3.2 Mixtures.

Substances posing a danger to health or the environment in accordance with the Regulation (EC) No. 1272/2008, assigned a Community exposure limit in the workplace, and classified as PBT/vPvB or included in the Candidate List:

			(*)Classification - Regulation (EC) No 1272/2008	
Identifiers	Name	Concentrate	Classification	Specifics concentration limits and Acute toxicity estimate
CAS No: 1305-62-0 EC No: 215-137-3 Registration No: 01- 2119475151-45-XXXX	[1] [2] calcium dihydroxide	10 - 75 %	Eye Dam. 1, H318 - Skin Irrit. 2, H315	-
CAS No: 14808-60-7 EC No: 238-878-4	[2] Quartz (SiO2)	35 - 75 %	-	-
CAS No: 14807-96-6 EC No: 238-877-9 Registration No: 01- 2120140278-58-XXXX	[2] Talc (Mg3H2(SiO3)4)	2.5 - 10 %	-	-

(*) The complete text of the H phrases is given in section 16 of this Safety Data Sheet.

[1] Substance with a European Union exposure limit in the workplace (see section 8.1).

[2] Substance with a national workplace exposure limit (see section 8.1).

SECTION 4: FIRST AID MEASURES.

IRRITANT MIXTURE. Its repeated or prolonged contact with the skin or mucous membranes can cause irritant symptoms such as reddening of the skin, blisters, or dermatitis. Some of the symptoms may not be immediate. They can cause allergic reactions on the skin.

4.1 Description of first aid measures.

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

Inhalation.

Take the victim into open air; keep them warm and calm. If breathing is irregular or stops, perform artificial respiration.

Eye contact.

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Wash eyes with plenty of clean and cool water for at least 10 minutes while pulling eyelids up, and seek medical assistance. Dont let the person to rub the affected eye.

Skin contact.

Remove contaminated clothing. Wash skin vigorously with water and soap or a suitable skin cleaner. NEVER use solvents or thinners.

Ingestion.

If accidentally ingested, seek immediate medical attention. Keep calm. NEVER induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed.

Corrosive Product, contact with eyes or skin can cause burns; ingestion or inhalation can cause internal damage, if this occurs immediate medical assistance is required.

Contact with eyes may cause irreversible damage.

4.3 Indication of any immediate medical attention and special treatment needed.

Request immediate medical attention. Never administer anything orally to persons who are unconscious. Do not induce vomiting. If the person vomits, clear the respiratory tract. Cover the affected area with a dry sterile bandage. Protect the affected area from pressure or friction.

SECTION 5: FIREFIGHTING MEASURES.

The product does not present any particular risk in case of fire.

5.1 Extinguishing media.

Suitable extinguishing media:

Extinguisher powder or CO2. In case of more serious fires, also alcohol-resistant foam and water spray.

Unsuitable extinguishing media:

Do not use a direct stream of water to extinguish. In the presence of electrical voltage, you cannot use water or foam as extinguishing media.

5.2 Special hazards arising from the substance or mixture.

Special risks.

Exposure to combustion or decomposition products can be harmful to your health.

5.3 Advice for firefighters.

Use water to cool tanks, cisterns, or containers close to the heat source or fire. Take wind direction into account. Prevent the products used to fight the fire from going into drains, sewers, or waterways.

Fire protection equipment.

According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and boots.

SECTION 6: ACCIDENTAL RELEASE MEASURES.

6.1 Personal precautions, protective equipment and emergency procedures.

For exposure control and individual protection measures, see section 8.

6.2 Environmental precautions.

Product not classified as hazardous for the environment, avoid spillage as much as possible.

6.3 Methods and material for containment and cleaning up.

Contain and collect spillage with inert absorbent material (earth, sand, vermiculite, Kieselguhr...) and clean the area immediately with a suitable decontaminant.

Deposit waste in closed and suitable containers for disposal, in compliance with local and national regulations (see section 13).

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6.4 Reference to other sections.

For exposure control and individual protection measures, see section 8. For later elimination of waste, follow the recommendations under section 13.

Do not inject at temperatures below 5°C and protect the applied material from frost in the first 48/72 hours after application.

SECTION 7: HANDLING AND STORAGE.

7.1 Precautions for safe handling.

For personal protection, see section 8.

In the application area, smoking, eating, and drinking must be prohibited.

Follow legislation on occupational health and safety.

Never use pressure to empty the containers. They are not pressure-resistant containers. Keep the product in containers made of a material identical to the original.

7.2 Conditions for safe storage, including any incompatibilities.

Store according to local legislation. Observe indications on the label. Store the containers between 5 and 25 ° C, in a dry and wellventilated place, far from sources of heat and direct solar light. Keep far away from ignition points. Keep away from oxidising agents and from highly acidic or alkaline materials. Do not smoke. Prevent the entry of non-authorised persons. Once the containers are open, they must be carefully closed and placed vertically to prevent spills.

The product is not affected by Directive 2012/18/EU (SEVESO III).

7.3 Specific end use(s).

Consolidation of frescoes and wall paintings detached from the mural substrate.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION.

8.1 Control parameters.

Work exposure limit for:

Name	CAS No.	Country	Limit value	ppm	mg/m ³
		European	Eight hours		1 (Respirable fraction)
		Union [1]	Short term		4 (Respirable fraction))
		United	Eight hours		5
		Kingdom [2]	Short term		
		Éire [3] United States [4] (Cal/OSHA)	Eight hours		1 (Respirable fraction)
calcium dihydroxide	1305-62-0		Short term		4 (Respirable fraction)
			Eight hours		5 (Total dust)
			Short term		
		United States	Eight hours		5 (Total dust)
		[5] (NIOSH)	Short term		
		United States [6] (OSHA)	Eight hours		15 (Total dust) 5 (Respirable fraction)
			Short term		
Quartz (SiO2)	14808-60-7	Éire [3]	Eight hours		0,1
	14000-00-7		Short term		

(in accordance with Regulation (EU) 2020/878)

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		United States	Eight hours		0.05 respirable dust, 0.3 (Total Dust)
		[4] (Cal/OSHA)	Short term		Dust
		United States [5] (NIOSH)	Eight hours		Potential occupational carcinogens 0.05 respirable dust, lowest feasible concentration (LFC).
			Short term		(10).
		United States [6] (OSHA)	Eight hours		(Total Dust) 30 mg/m3/(%SiO2 +2)
			Short term		
		United	Eight hours		1
		Kingdom [2]	Short term		
		Éire [3]	Eight hours		10 (Inhalable dust) 0,8 (Respirable dust)
			Short term		
		United States [4] (Cal/OSHA)	Eight hours		not containing asbestos: 2 (resp.)
			Short term		
		United States [5] (NIOSH)	Eight hours		not containing asbestos: 2 (resp.), containing asbestos: Use asbestos limit.
			Short term		
Talc (Mg3H2(SiO3)4)	14807-96-6	United States [6] (OSHA)	Eight hours	not containing asbestos: 20 (mppcf:Millions of particles per cubic foot of air, based on impinger samples counted by light-field techniques. Conversion factors - mppcf X 35.3 = million particles per cubic meter = particles per c.c.), containing asbestos: Use asbestos limit	
		1	Short term	1	

[1] According both Binding Occupational Esposure Limits (BOELVs) and Indicative Occupational Exposure Limits (IOELVs) adopted by Scientific Committee for Occupational Exposure Limits to Chemical Agents (SCOEL).

[2] According Limit Value (IOELV) list in 2nd Indicative Occupational Exposure adobted by Health and Safety Executive.

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[3] According Code of Practice for the Safety, Health and Welfare at Work (Chemicals Agents) Regulations adopted by Health and Safety Authority (HSA).

[4] California Division of Occupational Safety and Health (Cal/OSHA) Permissible Exposure Limits (PELs).

[5] National Institute for Occupational Safety and Health. NIOSH Recommendations for occupational safety and health,

Compendium of Policy Documents and Statements, January, 1992, DHHS (NIOSH) Publication No. 92-100.

[6] Occupational Safety and Health Administration, United States Department of Labor. Permissible Exposure limits (PELs),

California Division of Occupational Safety and Health (Cal/OSHA) Permissible Exposure Limits (PELs).

The product does NOT contain substances with Biological Limit Values.

Concentration levels DNEL/DMEL:

Name	DNEL/DMEL	Туре	Value
calcium dihydroxide CAS No: 1305-62-0	DNEL (Workers)	Inhalation, Chronic, Local effects	1 (mg/m ³)
EC No: 215-137-3	DNEL (Workers)	Inhalation, Chronic, Systemic effects	1 (mg/m ³)

DNEL: Derived No Effect Level, level of exposure to the substance below which adverse effects are not anticipated.

DMEL: Derived Minimal Effect Level, exposure level corresponding to a low risk, that risk should be considered a tolerable minimum.

8.2 Exposure controls.

Measures of a technical nature:

Provide adequate ventilation, which can be achieved by using good local exhaust-ventilation and a good general exhaust system.

Concentration:	100 %
Uses:	CONSERVING RESTORATION
Breathing protect	ion:
	I technical measures are observed, no individual protection equipment is necessary.
Hand protection:	
PPE:	Work gloves.
Characteristics:	«CE» marking, category I.
CEN standards:	EN 374-1, En 374-2, EN 374-3, EN 420
	Keep in a dry place, away from any sources of heat, and avoid exposure to sunlight as much as possible.
Maintenance:	Do not make any changes to the gloves that may alter their resistance, or apply paints, solvents or
	adhesives.
Observations:	Gloves should be of the appropriate size and fit the user's hand well, not being too loose or too tight.
	Always use with clean, dry hands.
Eye protection:	
PPE:	Protective goggles against particle impacts.
Characteristics:	«CE» marking, category II. Eye protector against dust and smoke.
CEN standards:	EN 165, EN 166, EN 167, EN 168
Maintenance:	Visibility through lenses should be ideal. Therefore, these parts should be cleaned daily. Protectors should be disinfected periodically following the manufacturer's instructions.
Observations:	Some signs of wear and tear include: yellow colouring of the lenses, superficial scratching of the lenses, scraping etc.
Skin protection:	
PPE:	Protective clothing.
Characteristics:	«CE» marking, category II. Protective clothing should not be too tight or loose in order not to obstruct the user's movements.
CEN standards:	EN 340
Maintenance:	In order to guarantee uniform protection, follow the washing and maintenance instructions provided by the manufacturer.
Observations:	The protective clothing should offer a level of comfort in line with the level of protection provided in terms of the hazard against which it protects, bearing in mind environmental conditions, the user's level of activity and the expected time of use.
PPE:	Work footwear.
Characteristics:	«CE» marking, category II.
CEN standards:	EN ISO 13287, EN 20347

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Maintenance:	This product adapt not be used by oth	s to the first user's foot shape. That is why, as we er people.	Il as for hygienic reasons, it should
Observations:	Work footwear for injury resulting from	professional use includes protection elements aim n an accident	ed at protecting users against any

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

9.1 Information on basic physical and chemical properties.

Physical state: Solid - Dust Color: Grayish white Odor: Characteristic Odor threshold: Not available Melting point: Not available Freezing point: Not available Boiling point or initial boiling point and boiling range: Not available Flammability: Not available Lower explosion limit: Not available Upper explosion limit: Not available Flash point: >60 °C Auto-ignition temperature: Not available Decomposition temperature: Not available pH: Not applicable/Not available due to the nature/properties of the product Kinematic viscosity: Not available Solubility: Not available Hydrosolubility: Not available Liposolubility: Not available Partition coefficient n-octanol/water (log value): Not available Vapor pressure: Not available Absolute density: Not available Relative density: Not available Relative vapor density: Not available Particle characteristics: Not available

9.2 Other information

Viscosity: Not available Explosive properties: Not applicable/Not available due to the nature/properties of the product Oxidizing properties: Not applicable/Not available due to the nature/properties of the product Dropping point: Not available Blink: Not available

SECTION 10: STABILITY AND REACTIVITY.

10.1 Reactivity.

The product does not present hazards by their reactivity.

10.2 Chemical stability.

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

10.3 Possibility of hazardous reactions.

The product does not present possibility of hazardous reactions.

10.4 Conditions to avoid.

Avoid any improper handling.

10.5 Incompatible materials.

Keep away from oxidising agents and from highly alkaline or acidic materials in order to prevent exothermic reactions.

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10.6 Hazardous decomposition products.

No decomposition if used for the intended uses.

SECTION 11: TOXICOLOGICAL INFORMATION.

IRRITANT MIXTURE. Its repeated or prolonged contact with the skin or mucous membranes can cause irritant symptoms such as reddening of the skin, blisters, or dermatitis. Some of the symptoms may not be immediate. They can cause allergic reactions on the skin.

11.1 Information on hazard classes as defined in Regulation (EC) Nº 1272/2008.

There are no tested data available on the product. Repeated or prolonged contact with the product can cause the elimination of oil from the skin, giving rise to non-allergic contact dermatitis and absorption of the product through the skin.

Splatters in the eyes can cause irritation and reversible damage.

a) acute toxicity; Not conclusive data for classification.

b) skin corrosion/irritation; Product classified: Skin irritant, Category 2: Causes skin irritation.

c) serious eye damage/irritation;
 Product classified:
 Serious eye damage, Category 1: Causes serious eye damage.

d) respiratory or skin sensitisation; Not conclusive data for classification.

e) germ cell mutagenicity; Not conclusive data for classification.

f) carcinogenicity; Not conclusive data for classification.

g) reproductive toxicity; Not conclusive data for classification.

h) STOT-single exposure; Not conclusive data for classification.

i) STOT-repeated exposure; Not conclusive data for classification.

j) aspiration hazard; Not conclusive data for classification.

11.2 Information on other hazards. Endocrine disrupting properties

This product does not contain components with endocrine-disrupting properties with effects on human health. **Other information**

There is no information available on other adverse health effects.

SECTION 12: ECOLOGICAL INFORMATION.

12.1 Toxicity.

No information is available regarding the ecotoxicity of the substances present.

(in accordance with Regulation (EU) 2020/878)

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12.2 Persistence and degradability.

No information is available regarding the biodegradability of the substances present. No information is available on the degradability of the substances present. No information is available about persistence and degradability of the product.

12.3 Bioaccumulative potential.

No information is available regarding the bioaccumulation of the substances present.

12.4 Mobility in soil.

No information is available about the mobility in soil. The product must not be allowed to go into sewers or waterways. Prevent penetration into the ground.

12.5 Results of PBT and vPvB assessment.

No information is available about the results of PBT and vPvB assessment of the product.

12.6 Endocrine disrupting properties.

This product doesn't contain components with environmental endocrine disrupting properties.

12.7 Other adverse effects.

No information is available about other adverse effects for the environment.

SECTION 13: DISPOSAL CONSIDERATIONS.

13.1 Waste treatment methods.

Do not dump into sewers or waterways. Waste and empty containers must be handled and eliminated according to current, local/national legislation.

Follow the provisions of Directive 2008/98/EC regarding waste management.

SECTION 14: TRANSPORT INFORMATION.

Transportation is not dangerous. In case of road accident causing the product's spillage, proceed in accordance with point 6.

14.1 UN number or ID number.

Transportation is not dangerous.

14.2 UN proper shipping name.

Description: ADR/RID: Not classified as hazardous for transport. IMDG: Not classified as hazardous for transport. ICAO/IATA: Not classified as hazardous for transport.

14.3 Transport hazard class(es).

Transportation is not dangerous.

14.4 Packing group.

Transportation is not dangerous.

14.5 Environmental hazards.

Transportation is not dangerous. Transport by ship, FEm – Emergency sheets (F – Fire, S - Spills): Not applicable.

14.6 Special precautions for user.

Transportation is not dangerous.

14.7 Maritime transport in bulk according to IMO instruments.

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Transportation is not dangerous.

SECTION 15: REGULATORY INFORMATION.

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

The product is not affected by the Regulation (EC) No 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer.

Product classification according to Annex I of Directive 2012/18/EU (SEVESO III): N/A

The product is not affected by Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products.

The product is not affected by the procedure established Regulation (EU) No 649/2012, concerning the export and import of dangerous chemicals.

15.2 Chemical safety assessment.

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: OTHER INFORMATION.

Complete text of the H phrases that appear in section 3:

H315Causes skin irritation.H318Causes serious eye damage.

Classification codes:

Eye Dam. 1 : Serious eye damage, Category 1 Skin Irrit. 2 : Skin irritant, Category 2

Changes regarding to the previous version:

- Change of the name of the product (SECTION 1.1).
- Change of the uses of the product (SECTION 1.2).
- Change in the hazard classification (SECTION 2.1).
- Removal of precautionary statements/hazard statements/pictograms/signal word (SECTION 2.2).
- Addition of precautionary statements/hazard statements/pictograms/signal word (SECTION 2.2).
- Changes in the composition of the product (SECTION 3.2).
- Changes in the composition of the product (SECTION 3.2).
- Modifications in the first aid measures (SECTION 4.1).
- Modification of the symptoms (SECTION 4.2).
- Modification of the medical attention measures (SECTION 4.3).
- Modifications in the handling and storage precautions (SECTION 7.1).
- Modifications in the handling and storage precautions (SECTION 7.2).
- Elimination of exposure data (SECTION 8.1).
- Elimination of personal protective equipment (SECTION 8.2).
- Modifications of the personal protective equipment (SECTION 8.2).
- Change in the hazard classification (SECTION 11.1).

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

(in accordance with Regulation (EU) 2020/878)

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Physical hazardsOn basis of test dataHealth hazardsCalculation methodEnvironmental hazardsCalculation method

It is advisable to carry out basic training with regard to health and safety at work in order to handle this product correctly.

Abbreviations and acronyms used:

CEN: European Committee for Standardization.

DMEL: Derived Minimal Effect Level, exposure level corresponding to a low risk, that risk should be

considered a tolerable minimum.

- DNEL: Derived No Effect Level, level of exposure to the substance below which adverse effects are not anticipated.
- PPE: Personal protection equipment.

Key literature references and sources for data: http://eur-lex.europa.eu/homepage.html http://echa.europa.eu/ Regulation (EU) 2020/878. Regulation (EC) No 1907/2006. Regulation (EU) No 1272/2008.

The information given in this Safety Data Sheet has been drafted in accordance with COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemical substances and mixtures (REACH).

The information in this Safety Data Sheet on the Preparation is based on current knowledge and on current EC and national laws, as far as the working conditions of the users is beyond our knowledge and control. The product must not be used for purposes other than those that are specified without first having written instructions on how to handle. It is always the responsibility of the user to take the appropriate measures in order to comply with the requirements established by current legislation. The information contained in this Safety Sheet only states a description of the safety requirements for the preparation, and it must not be considered as a guarantee of its properties.