



ARENA

F O R C E

Waterproofing,
protection
and concrete repair

ARENA RepairMaster R300; ARENA RepairMaster R500; ARENA RepairMaster R500+; ARENA FastMix Hot30; ARENA FastMix EasyHot8

Version : 01

Date of revision :02/09/2017

SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II - Europe

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

1.1. Product identifier

ARENA RepairMaster R300; ARENA RepairMaster R500; ARENA RepairMaster R500+; ARENA FastMix Hot30; ARENA FastMix EasyHot8.

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

Used to repair (recovery), waterproofing and corrosion protection of building structures. The product is intended for consumer and professional use.

1.3. Details of the supplier of the safety data sheet

Manufacturer:

LLC "Waterproofing plant" ARENA "
Postal and legal address: 620131, Ekaterinburg, Metallurgov Street, Building 84, Apt. 616
E-mail: info@arenasmesi.ru
Phone: +7 (343) 357-90-77; 8-800-511-06-86;
Homepage: www.arenasmesi.ru
E-mail: info@arenasmesi.ru
Information issuing department: info@arenasmesi.ru

Provider

LLC "Waterproofing plant" ARENA "
Postal and legal address: 620131, Ekaterinburg, Metallurgov Street, Building 84, Apt. 616
E-mail: info@arenasmesi.ru
Phone: +7 (343) 357-90-77; 8-800-511-06-86;
Homepage: www.arenasmesi.ru
E-mail: info@arenasmesi.ru
Information issuing department: info@arenasmesi.ru

1.4. Emergency telephone number

EU:112
Emergency telephone for other regions to be filled out by local business

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Product definition Mixture
Classification according to regulation (EC) No 1272/2008:
Classification: **Skin Irrit. 2, H315**
Skin Sens. 1B, H317
Eye Dam. 1, H318
STOT SE 3, H335



2.2. Label elements

According to regulation (EC) No 1272/2008:

Symbol:
(Size: 16x16 mm, not less 1cm²)



Signal word:
Hazard statements:

Danger

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.
Contain: Cement, portland, chemicals; Calcium dihydroxide.
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P261 Avoid breathing dust.
P264 Wash hands thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear eye/face protection.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P362+P363 Take off contaminated clothing. Wash contaminated clothing before reuse.
P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
P501 Dispose of: empty container as a household waste into the appropriate collection site / unused content to a licensed hazardous-waste disposal contractor in accordance with regulation.

Hazardous ingredients:
Precautionary statements:

Supplemental label elements

Not relevant.

Special packaging requirements

Containers to be fitted with child-resistant fastenings:
Tactile warning of danger Δ :

No, not applicable.

No, not applicable.

2.3. Other hazards

Product does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH (Regulation (EC) No 1907/2006).

See section 11 for more detailed information on health effects and symptoms.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Mixture

Ingredient name	Identifiers	Conc. %	Classification according to Regulation (EC) 1272/2008 (CLP)	Type
Cement, portland, chemicals	EINECS: 266-043-4 CAS: 65997-15-1 INDEX: Not available. REACH: Exempted from registration ¹ .	50-90	Skin Irrit. 2, H315 Skin Sens. 1B, H317 Eye Dam. 1, H318 STOT SE 3, H335 (lung, bronchi,...) (Inhalation)	[1] [2]
Crystalline Silica, Quartz. Crystalline Silicon Dioxide	EINECS: 231-545-4 CAS: 7631-86-9, 112926-00-8 INDEX: Not available.	10-50	STOT SE 3, H335 (Respiratory tra...) (Inhalation)	[1] [2]



ARENA FORCE

Waterproofing,
protection
and concrete repair

	REACH: Exempted from registration 1		
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There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

See section 16 for the full text of the H phrases declared above.

Occupational exposure limits, if available, are listed in section 8.

Type:

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

¹ Exempted from registration. The exception under REACH Regulation Article 2, paragraph 7 b) and Annex V, paragraph 10 (cement).

² Exempted from registration. The exception under REACH Regulation Article 2, paragraph 7 b) and Annex V, paragraph 7 (natural minerals).

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General notes:	No personal protective equipment is needed for first aid responders. First aid workers should avoid contact with wet flue dust or flue dust containing preparations.
Eye contact:	Do not rub eyes in order to avoid possible corneal damage by mechanical stress. Remove contact lenses if any. Incline head to injured eye, open the eyelids widely and flush eye(s) immediately by thoroughly rinsing with plenty of clean water for at least 20 minutes to remove all particles. Avoid flushing particles into uninjured eye. Contact a specialist of occupational medicine or an eye specialist.
Skin contact:	For dry mixture, remove and rinse skin abundantly with plenty of water. For wet/damp mixture, wash skin with plenty of water. Remove contaminated clothing, footwear, watches, etc. and clean thoroughly before re-using them. Seek medical treatment in all cases of irritation or burns. In case of irritation or chemical burns, get medical attention immediately.
Inhalation:	Move the person to fresh air. Dust in throat and nasal passages should clear spontaneously. Contact a physician if irritation persists or later develops or if discomfort, coughing or other symptoms persist.
Ingestion:	Do not induce vomiting. If the person is conscious, wash out mouth with water and give plenty of water to drink. Get immediate medical attention or contact the anti-poison centre.

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

Inhalation:	Ingestion of powdered form of the mixture is unlikely, but if it has happened, irritation to the mouth, throat and esophageal is possible.
Skin contact:	Mixture may cause an irritating effect or dermatitis after prolonged contact or after repeated contact with moist skin (due to sweat or humidity).
Eye contact:	Eye contact with flue dust (dry or wet) may cause serious and potentially irreversible injuries.
Ingestion:	Ingestion of powdered form of the mixture is unlikely, but if it has happened, irritation to the mouth, throat and esophageal is possible.

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

Specific treatments:	Treat symptomatically. Contact poison treatment specialist immediately. When contacting a physician, take this SDS with you.
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See section 11 for more detailed information on health effects and symptoms.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media:	Mixture is not flammable. In case of fire use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media:	None known.

5.2. Special hazards arising from the substance or mixture

The dry mixture is not combustible and does not contribute to combustion. When extinguishing fire place with water, at which the mixture is stocked, it should be taken into account that the wet mixture is highly alkaline, which may pose a risk to the health of firefighters, as well as cause a reaction with other substances involved in a fire.

5.3. Advice for firefighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Fire water



contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel:

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapour or mist. Avoid dust formation. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

6.1.2. For emergency responders:

Sweep up to prevent slipping hazard. If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also Section 8 for additional information on hygiene measures.

6.2. Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3. Methods and material for containment and cleaning up

Clean up methods:

Collect spilled material mechanically and use it for its intended purpose, if it is not significantly contaminated or become damp.

Use dry cleanup methods such as vacuum clean-up or vacuum extraction (Industrial portable units equipped with high efficiency air filters (EPA and HEPA filters, EN 1822-1:2009) or equivalent technique) which does not cause airborne dispersion. Never use compressed air for surface cleaning. Ensure that the workers wear appropriate personal protective equipment and prevent dust from spreading.

Other instructions:

Avoid inhalation of dust and contact of with skin. Place spilled material in a container for future use. In case of very large spill, if there is a threat to the environment, contact the local competent authorities (Firefighting and rescue services, local government, the State Environmental Service).

6.4. Reference to other sections

See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information

SECTION 7: HANDLING AND STORAGE

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1. Precautions for safe handling

Protective measures:

Put on appropriate personal protective equipment (see Section 8). For cleanup of mixture, see Subsection 6.3. Do not get in eyes or on skin or clothing. Do not breathe dust. Do not ingest. Avoid the creation of dust when handling, to avoid creation of dust and aerosol: do not sweep mixture, use dry cleanup methods such as vacuum clean-up or vacuum extraction, which do not cause airborne dispersion. Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene:

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2. Conditions for safe storage, including any incompatibilities

Storage:

Mixture should be stored under waterproof, dry (i.e. with internal condensation minimised) conditions, clean and protected from contamination.



Engulfment hazard: mixture can build-up or adhere to the walls of a confined space. The mixture can release, collapse or fall unexpectedly. To prevent engulfment or suffocation, do not enter a confined space, such as a silo, bin, bulk truck, or other storage container or vessel that stores or contains flue dust without taking the proper safety measures.

Do not use aluminium containers due to incompatibility of the materials.

No specific recommendation.

Do not store above the following temperature:

7.3. Specific end use(s)

Recommendations:

Hydraulic additive for concrete. For concrete protection and permeability reduction.

The product is intended for consumer and professional use.

Industrial sector specific solutions:

Not available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

Limit values are laid down throughout the EU, but each Member State establishes its own national OELs, often going beyond EU legislation ((IOELV). OELs are set by competent national authorities and other relevant institutions.

EU: Indicative Occupational Exposure Limit Value (IOELV):

Substance name	Limit value 8 hours		Limit value short term	
	mg/m ³	ppm	mg/m ³	ppm
Values not established	-	-	-	-

Latvia (AER, reg.325/2011):

Substance name	Limit value 8 hours		Limit value short term	
	mg/m ³	ppm	mg/m ³	ppm
Cement, portland, chemicals	6	-	-	-
Silicon dioxide	1	-	-	-
Limestone, dolomite (calcium carbonate), minerals	6	-	-	-

Germany, TRGS 900

Substance name	Limit value 8 hours		Limit value short term	
	mg/m ³	ppm	mg/m ³	ppm
Cement, portland, chemicals	5 E	-	-	-
Silicon dioxide	4 E	-	-	-

United Kingdom EH40/2005

Substance name	Limit value 8 hours		Limit value short term	
	mg/m ³	ppm	mg/m ³	ppm
Cement, portland, chemicals:	total inhalable	10	-	-
	respirable	4	-	-
Limestone, dolomite (calcium carbonate), minerals:	total inhalable	10	-	-
	respirable	4	-	-

Recommended monitoring Procedures:

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

8.2 Manufacturer: Exposure controls

Appropriate engineering Controls:

Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also



need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures:

Hygiene measures:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection:



Wear approved glasses or safety goggles according to EN 166 when handling dry or wet flue dust to prevent contact with eyes.

Skin protection:

Hand protection



Use impervious, abrasion and alkali resistant gloves (made of low soluble Cr (VI) containing material) internally lined with cotton complying with an approved standard (EN 374) should be worn.

Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body and skin protection



Wear boots, protective clothing with long closed sleeves. After work, wash in the shower. After work always change clothes and shoes.

Respiratory protection



If during work with dry mixture, there is dust formation risk, respiratory protective equipment should be used:

Reusable respirators and half masks: P2 type dust masks and filters, which comply with EN 143 standard, should be used.

Disposable half masks: Use FFP1 or FFP2 masks that comply with EN 149 standard.

If the mixture is mixed by hand use FFP3 half mask.

Environmental exposure controls:

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Water environment risk control: when mixture reacts with water hydroxides can be formed, which may affect the water pH changes. This may affect the local sewage treatment plants. If there is a predictable wastewater entering the treatment plant, they should be neutralized before entering treatment plant.

Terrestrial environment hazard control measures are not necessary.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

Physical state

Powder.

Colour

Gray.

Odour

No odour.

Odour threshold

Not applicable.

pH

10-13 (Solution).

Melting point/freezing point

> 1000 °C.

Initial boiling point and boiling range

Not available.

Flash point

Not available.



Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	Not available.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	Not available.
Solubility(ies)	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not available.
9.2. Other information	Not available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Not available.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

When mixed with water the product forms an alkaline solution, which can cause skin irritation.

10.4. Conditions to avoid

Keep away from water and protect from freezing.

10.5. Incompatible materials

Acids, ammonium compounds, aluminum.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity estimate (ATE): Product is not classified.

Acute toxicity of ingredients: Product is not classified.

	Result	Species	Dose	Note
Cement, portland, chemicals	No known effect according to our database.			

Irritation/ Corrosion: Skin Irrit. 2 H315
Eye Dam. 1 H318

Cement, portland, chemicals	Dermal: Irritating. Eyes: Corrosive.			
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Sensitisation: Skin Sens. 1B H317

Cement, portland, chemicals	Skin: Sensitizing. Respiratory: No known effect according to our database.			
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Repeated dose toxicity: Product is not classified.

Cement, portland, chemicals	No known effect according to our database.			
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Carcinogenicity: Product is not classified.

Cement, portland, chemicals	NOAEL: 2 150 mg/kg bw/day.			
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Mutagenicity: Product is not classified.

Cement, portland, chemicals	No known effect according to our database.			
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Toxicity for reproduction: Product is not classified.



Cement, portland, chemicals	No known effect according to our database.
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Specific target organ toxicity. Single / repeated exposure: STOT SE 3 H335

Cement, portland, chemicals	May cause respiratory irritation.
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Aspiration hazard

Cement, portland, chemicals	No known effect according to our database.
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Potential acute health effects

Inhalation:	Repeated inhalation of dust over a long period of time can increase the risk of lung disease.
Skin contact:	Prolonged contact with the mixture may cause irritation, dermatitis or burns.
Eye contact:	Can result in serious and possibly irreversible eye damage.
Ingestion:	Ingestion of powdered form of the mixture is unlikely, but if it has happened, irritation to the mouth, throat and esophageal is possible.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	A mixture of dust may aggravate existing respiratory diseases (emphysema, asthma). A mixture of dust may irritate the throat and respiratory tract. Possible cough, sneezing, shortness of breath.
Skin contact:	A mixture of dust may aggravate existing skin.
Eye contact:	A mixture of dust may aggravate existing eye diseases.
Ingestion:	A mixture of dust may irritate the throat and respiratory tract. Possible cough, sneezing, shortness of breath.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure:

Potential immediate effects:	Not available.
Potential delayed effects:	Not available.

Long term exposure:

Potential immediate effects:	Not available.
Potential delayed effects:	Not available.

Potential chronic health effects: No known significant effects or critical hazards.

Conclusion/Summary

General	No known significant effects or critical hazards.
Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	No known significant effects or critical hazards.
Developmental effects	No known significant effects or critical hazards.
Fertility effects	No known significant effects or critical hazards.

11.2. Other information

Not available.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Product is not classified.

Cement, portland, chemicals	No known significant effects or critical hazards.
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12.2. Biodegradation

No known significant effects or critical hazards.

12.3. Bioaccumulative potential

No known significant effects or critical hazards.

12.4. Mobility in soil

No known significant effects or critical hazards.

12.5. Results of PBT and vPvB assessment

Product (and ingredients) does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH (Regulation (EC) No 1907/2006).

12.6. Other adverse effects

No known significant effects or critical hazards.



SECTION 13: DISPOSAL CONSIDERATIONS

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1. Waste treatment methods

Product:

Unused mixture

Waste Hazard Code: H4 Irritant: substances and preparations which, through immediate, repeated or prolonged contact with the skin or mucous membranes, causes irritation or inflammatory response.

Classification according to European Waste Catalogue (EWC): 10 13 11 - wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 10.

Waste recovery type: R5 inorganic material processing or purification.

Cement, containing inorganic compounds, is recyclable.

Avoid release in drains, bodies of water and sewer system.

Dispose of hazardous waste or production waste via licensed waste manager, who has received the State Environmental Service permit for the collection, transport, handling, sorting, storage and recovery of waste in accordance with the laws and regulations on pollution.

See Section 8 for appropriate personal protective equipment to be used during processing.

Used product

Further classification is attributed to solidified mixture of sorted construction waste from which cement containing waste has been separated.

Waste Hazard Code: Not classified as dangerous.

Classification according to European Waste Catalogue (EWC): 17 01 01 - Concrete.

Waste not considered as dangerous.

Waste recovery type: R5 inorganic material processing or purification.

Cement, containing inorganic compounds, is recyclable.

Dispose of waste via licensed waste manager, who has the right to collect and recycle construction waste.

Packaging:

Methods of disposal:

The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Can be added to general waste collection after completely emptying. Incineration or landfill should only be considered when recycling is not feasible.

Classification according to European Waste Catalogue (EWC):

20 01 01 - Paper and cardboard

20 01 39 - Plastics

Within the present knowledge of the supplier, packaging is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

SECTION 14: TRANSPORT INFORMATION

This preparation is not classified as dangerous according to international transport regulations (ADR/RID, IMDG or ICAO/IATA).

	ADR/RID	ADN	IMDG	IATA
14.1. UN number	None	None	None	None
14.2. UN proper shipping name	None	None	None	None
14.3. Transport hazard class(es)	None	None	None	None
14.4. Packing group	None	None	None	None
14.5. Environmental hazards	None	None	None	None
14.6. Special precautions for user	None	None	None	None
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.			



ARENA FORCE

Waterproofing,
protection
and concrete repair

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture EU Regulation (EC) No. 1907/2006 (REACH):

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures.

REGULATION (EC) No 648/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on detergents.

ADR - the European Agreement concerning the International Carriage of Dangerous Goods by Road, concluded at Geneva on 30 September 1957, as amended.

RID - the Regulations concerning the International Carriage of Dangerous Goods by Rail, appearing as Appendix C to the Convention concerning International Carriage by Rail (COTIF) concluded at Vilnius on 3 June 1999, as amended.

ADN - the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways concluded at Geneva on 26 May 2000, as amended.

IMDG Code - International Maritime Dangerous Goods Code.

IATA/ICAO: ICAO - International Civil Aviation Organization. IATA - International Air Transport Association.

MARPOL 73/78 - International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978.

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH):

Annex XIV - List of substances subject to authorization: Substances of very high concern: None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles: Not applicable.

15.2. Chemical safety assessment

Chemical Safety Assessment following regulation 1907/2006/EC: This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms:

Full text of abbreviations

CLP: Classification, Labelling and Packaging Regulation [Regulation (EC) No.1272/2008]
ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
RID: International Rule for Transport of Dangerous Substances by Railway
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
CAS: Chemical Abstracts Service
EINECS: European Inventory of Existing Commercial chemical Substances
LC50: Median lethal concentration
LD50: Median lethal dose
REACH: Registration, Evaluation and Authorisation of Chemicals
PBT: Persistent, bio-accumulative and toxic
vPvB: Very persistent, very bio-accumulative
bw: Body Weight.

Full text of classifications and H statements [CLP/GHS]:

Skin Irrit. 2; Skin corrosion/irritation, Hazard Category 2,
H315 Causes skin irritation.
Skin Sens. 1B, Sensitisation — Skin, hazard category 1B;
H317 May cause an allergic skin reaction.
Eye Dam. 1, Serious eye damage/eye irritation, Hazard Category 1;
H318 Causes serious eye damage.
STOT SE 3; Specific target organ toxicity — Single exposure, Hazard Category 3, Respiratory tract irritation,



ARENA

F O R C E

Waterproofing,
protection
and concrete repair

H335 May cause respiratory irritation.

Product classification according to Regulation (EC) 1272/2008 (CLP)

Classification for health effects:

Skin Irritation/corrosion (conventional method used):

Cement, portland, chemicals: 40-50%, Skin Irrit. 2; H315

Calcium dihydroxide: 10-15%, Skin Irrit. 2, H315

$15/10+50/10=6,5 >1 \Rightarrow$ **Skin Irrit. 2, H315**

Skin sensitisation (conventional method used):

Cement, portland, chemicals: 40-50%, Skin Sens. 1B, H317

Concentration more than 1% \Rightarrow Skin Sens. 1B, H317

Eye Irritation/corrosion (conventional method used):

Cement, portland, chemicals: 40-50%, Eye Dam. 1, H318

Calcium dihydroxide: 10-15%, Eye Dam. 1, H318

$15/3+50/3=21.67 >1 \Rightarrow$ **Eye Dam. 1, H318**

Specific target organ toxicity (conventional method used):

Cement, portland, chemicals: 40-50%, STOT SE 3, H335

Calcium dihydroxide: 10-15%, STOT SE 3, H335

Concentration more than 20% \Rightarrow STOT SE 3, H335

Training advice:

In addition to health, safety and environmental training programs for their workers, companies must ensure that workers read, understand and apply the requirements of this SDS.

DISCLAIMER OF LIABILITY:

The information in this MSDS 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 method 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.

END OF SAFETY DATA SHEET

General Director of LLC "Waterproofing plant" ARENA"



L. A. Nikitina



ARENA
FORCE

Waterproofing,
protection
and concrete repair

Page 1/3

Safety Data Sheets
according to 1907/2006/EC, Article 31

Date of printing: 25.10.2017

Revision : 25.10.2017

**ARENA
FORCE**
Waterproofing, protection and concrete repair

SECTION 1 - MANUFACTURER IDENTIFICATION

Product details

Product Identity: ARENA DryDeform

Application of the substance / preparation: sealing of seams

Manufacturer / Supplier: " LLC "Waterproofing plant" ARENA "

Postal and legal address: 620131, Ekaterinburg, Metallurgov Street, Building 84, Apt. 616

E-mail: info@arenasmesi.ru

Phone: +7 (343) 357-90-77; +7-800-511-06-86;

Homepage: www.arenasmesi.ru

E-mail: info@arenasmesi.ru

Further information: info@arenasmesi.ru

Emergency information (Accident) cases: +7-800-511-06-86, +7 (343) 357-90-77

SECTION 2 - PRODUCT IDENTIFICATION

Product Name: ARENA DryDeform Product

Description: Hydrophilic Butyl Sealant H.M.I.S Rating:

Health=0 Fire = 1 Reactivity=0 Protection=A

SECTION 3 - HAZARDOUS INGREDIENTS

Hazardous Components	CAS Number	% Composition	OSHA PEL
Not applicable for this product.			

SECTION 4 - FIRE & EXPLOSION HAZARD DATA

Specific Gravity (H20=1): 1.35

(% Volume): 0.00%

Solubility in Water: Insoluble

Evaporation Rate (BuAc=1): N/A

Volatile Organic Content: N/A

Boiling Point: N/A Volatile

Melt/Freeze Point: N/A

Vapor Density (Air=1): N/A

Vapor Pressure (mm of Mercury): N/A

Appearance/Odor: Black tacky solid, slight petroleum odor

(Continued on page 2)



ARENA
FORCE

Waterproofing,
protection
and concrete repair

Page 2/3

Safety Data Sheets
according to 1907/2006/EC, Article 31

Date of printing: 25.10.2017

Revision : 25.10.2017

TradeName: ARENA DryDeform

SECTION 5 • FIRE AND EXPLOSION DATA

Flash point: 232°C (450°F)

Method Used: COC

Flammable Limits in Air, % by Volume:

UEL Upper: N/D LEL

Lower: N/D

Extinguishing Media: Dry chemical, carbon dioxide, foam, water. **Unusual Fire and Explosion Hazards:** None known **Special Fire Fighting Procedures:** None known

SECTION 6 - REACTIVITY DATA

Stability: Stable

Conditions to Avoid: None known **Materials to Avoid:**

Strong oxidizing agents

Hazardous Decomposition or By-Products: Upon ignition may form CO₂, CO, and various hydrocarbon fumes.

SECTION 7 - HEALTH HAZARDS

Acute: None known **Chronic:** None known

Signs and Symptoms of Exposure: None known

Medical Conditions Generally Aggravated by Exposure: None known

Toxicity Data:

National Toxicology Program: No

I.A.R.C. Monographs: No

OSHA: No

Emergency and First Aid Procedures:

Eye contact: Flush with warm water for 15 minutes. If irritation persists, contact physician.

Skin contact: Wash contaminated area with soap and water.

Ingestion: DO NOT INDUCE VOMITING. Contact a physician.

Routes of Entry:

Inhalation: No

Eyes: No

Skin: No

Ingestion: Not likely

(Continued on page 3)



ARENA FORCE

Waterproofing,
protection
and concrete repair

Page 3/3

Safety Data Sheets according to 1907/2006/EC, Article 31

Date of printing: 25.10.2017

Revision : 25.10.2017

TradeName: ARENA DryDeform

SECTION 8 - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Be Taken In Case Material Is Released or Spilled: Remove sources of ignition. **Waste Disposal:** Dispose of in accordance with local, state and federal regulations. **Precautions to be taken in handling and storage:** Rotate stock. Do not stack cartons on end.

SECTION 9 - CONTROL MEASURES

Respiratory Protection: Not required under normal applications. **Ventilation:**

Local Exhaust: N/A

Mechanical: N/A Special: N/A

Other: N/A

Protective Gloves: Chemical resistant, imperious. **Eye Protection:**

Safety goggles or glasses. **Other protective clothing or**

equipment: N/A

Hygienic Practices; Wash hands with soap and water after working with this material. Practice good personal hygiene.

SECTION 10 ■ DISCLAIMER OF LIABILITY

Company warrants that the products manufactured by it shall be free from material defects and will conform to formulation standards and contain all components in their proper proportion. Should any of the products be proven defective, the liability to company shall be limited to replacement of the material proven to be defective and shall in no case be liable otherwise or for incidental or consequential damages.

Company MAKES NO WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED. User shall determine the suitability of the product for his intended use and assume all risks and liability in connection therewith.

General Director of LLC "Waterproofing plant"ARENA"



L. A. Nikitina



ARENA FORCE

Waterproofing,
protection
and concrete repair

ARENA TopSL

Version : 01

Date of revision :05/10/2017

SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II - Europe

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

1.1. Product identifier

ARENA TopSL

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

Used to repair (recovery), waterproofing and corrosion protection of building structures. The product is intended for consumer and professional use.

1.3. Details of the supplier of the safety data sheet

Manufacturer:

LLC "Waterproofing plant" ARENA "

Postal and legal address: 620131, Ekaterinburg, Metallurgov Street, Building 84, Apt. 616

E-mail: info@arenasmesi.ru

Phone: +7 (343) 357-90-77; 8-800-511-06-86;

Homepage: www.arenasmesi.ru

E-mail: info@arenasmesi.ru

Information issuing department: info@arenasmesi.ru

Provider

LLC "Waterproofing plant" ARENA "

Postal and legal address: 620131, Ekaterinburg, Metallurgov Street, Building 84, Apt. 616

E-mail: info@arenasmesi.ru

Phone: +7 (343) 357-90-77; 8-800-511-06-86;

Homepage: www.arenasmesi.ru

E-mail: info@arenasmesi.ru

Information issuing department: info@arenasmesi.ru

1.4. Emergency telephone number

EU:112

Emergency telephone for other regions to be filled out by local business

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Product definition Mixture

Classification according to regulation (EC) No 1272/2008:

Classification:

Skin Irrit. 2, H315

Skin Sens. 1B, H317

Eye Dam. 1, H318

STOT SE 3, H335



2.2. Label elements

According to regulation (EC) No 1272/2008:

Symbol:
(Size: 16x16 mm, not less 1cm²)



Signal word:

Hazard statements:

Hazardous ingredients:

Precautionary statements:

Danger

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

Contain: Cement, portland, chemicals; Calcium dihydroxide.

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P261 Avoid breathing dust.

P264 Wash hands thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear eye/face protection.

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

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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

P362+P363 Take off contaminated clothing. Wash contaminated clothing before reuse.

P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

P501 Dispose of: empty container as a household waste into the appropriate collection site / unused content to a licensed hazardous-waste disposal contractor in accordance with regulation.

Supplemental label elements

Not relevant.

Special packaging requirements

Containers to be fitted with child-resistant fastenings:

No, not applicable.

Tactile warning of danger Δ :

No, not applicable.

2.3. Other hazards

Product does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH (Regulation (EC) No 1907/2006).

See section 11 for more detailed information on health effects and symptoms.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Mixture

Ingredient name	Identifiers	Conc. %	Classification according to Regulation (EC) 1272/2008 (CLP)	Type
Cement, portland, chemicals	EINECS: 266-043-4 CAS: 65997-15-1 INDEX: Not available. REACH: Exempted from registration ¹ .	50-90	Skin Irrit. 2, H315 Skin Sens. 1B, H317 Eye Dam. 1, H318 STOT SE 3, H335 (lung, bronchi,...) (Inhalation)	[1] [2]
Crystalline Silica, Quartz. Crystalline Silicon Dioxide	EINECS: 231-545-4 CAS: 7631-86-9, 112926-00-8 INDEX: Not available.	10-50	STOT SE 3, H335 (Respiratory tra...) (Inhalation)	[1] [2]



	REACH: Exempted from registration 1		
--	-------------------------------------	--	--

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

See section 16 for the full text of the H phrases declared above.

Occupational exposure limits, if available, are listed in section 8.

Type:

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

¹ Exempted from registration. The exception under REACH Regulation Article 2, paragraph 7 b) and Annex V, paragraph 10 (cement).

² Exempted from registration. The exception under REACH Regulation Article 2, paragraph 7 b) and Annex V, paragraph 7 (natural minerals).

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General notes:	No personal protective equipment is needed for first aid responders. First aid workers should avoid contact with wet flue dust or flue dust containing preparations.
Eye contact:	Do not rub eyes in order to avoid possible corneal damage by mechanical stress. Remove contact lenses if any. Incline head to injured eye, open the eyelids widely and flush eye(s) immediately by thoroughly rinsing with plenty of clean water for at least 20 minutes to remove all particles. Avoid flushing particles into uninjured eye. Contact a specialist of occupational medicine or an eye specialist.
Skin contact:	For dry mixture, remove and rinse skin abundantly with plenty of water. For wet/damp mixture, wash skin with plenty of water. Remove contaminated clothing, footwear, watches, etc. and clean thoroughly before re-using them. Seek medical treatment in all cases of irritation or burns. In case of irritation or chemical burns, get medical attention immediately.
Inhalation:	Move the person to fresh air. Dust in throat and nasal passages should clear spontaneously. Contact a physician if irritation persists or later develops or if discomfort, coughing or other symptoms persist.
Ingestion:	Do not induce vomiting. If the person is conscious, wash out mouth with water and give plenty of water to drink. Get immediate medical attention or contact the anti-poison centre.

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

Inhalation:	Ingestion of powdered form of the mixture is unlikely, but if it has happened, irritation to the mouth, throat and esophageal is possible.
Skin contact:	Mixture may cause an irritating effect or dermatitis after prolonged contact or after repeated contact with moist skin (due to sweat or humidity).
Eye contact:	Eye contact with flue dust (dry or wet) may cause serious and potentially irreversible injuries.
Ingestion:	Ingestion of powdered form of the mixture is unlikely, but if it has happened, irritation to the mouth, throat and esophageal is possible.

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

Specific treatments:	Treat symptomatically. Contact poison treatment specialist immediately. When contacting a physician, take this SDS with you.
----------------------	--

See section 11 for more detailed information on health effects and symptoms.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media:	Mixture is not flammable. In case of fire use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media:	None known.

5.2. Special hazards arising from the substance or mixture

The dry mixture is not combustible and does not contribute to combustion. When extinguishing fire place with water, at which the mixture is stocked, it should be taken into account that the wet mixture is highly alkaline, which may pose a risk to the health of firefighters, as well as cause a reaction with other substances involved in a fire.

5.3. Advice for firefighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Fire water



ARENA FORCE

Waterproofing,
protection
and concrete repair

contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel:

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapour or mist. Avoid dust formation. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

6.1.2. For emergency responders:

Sweep up to prevent slipping hazard. If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also Section 8 for additional information on hygiene measures.

6.2. Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3. Methods and material for containment and cleaning up

Clean up methods:

Collect spilled material mechanically and use it for its intended purpose, if it is not significantly contaminated or become damp.

Use dry cleanup methods such as vacuum clean-up or vacuum extraction (Industrial portable units equipped with high efficiency air filters (EPA and HEPA filters, EN 1822-1:2009) or equivalent technique) which does not cause airborne dispersion. Never use compressed air for surface cleaning. Ensure that the workers wear appropriate personal protective equipment and prevent dust from spreading.

Other instructions:

Avoid inhalation of dust and contact of with skin. Place spilled material in a container for future use. In case of very large spill, if there is a threat to the environment, contact the local competent authorities (Firefighting and rescue services, local government, the State Environmental Service).

6.4. Reference to other sections

See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information

SECTION 7: HANDLING AND STORAGE

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1. Precautions for safe handling

Protective measures:

Put on appropriate personal protective equipment (see Section 8). For cleanup of mixture, see Subsection 6.3. Do not get in eyes or on skin or clothing. Do not breathe dust. Do not ingest. Avoid the creation of dust when handling, to avoid creation of dust and aerosol: do not sweep mixture, use dry cleanup methods such as vacuum clean-up or vacuum extraction, which do not cause airborne dispersion. Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene:

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2. Conditions for safe storage, including any incompatibilities

Storage:

Mixture should be stored under waterproof, dry (i.e. with internal condensation minimised) conditions, clean and protected from contamination.



Engulfment hazard: mixture can build-up or adhere to the walls of a confined space. The mixture can release, collapse or fall unexpectedly. To prevent engulfment or suffocation, do not enter a confined space, such as a silo, bin, bulk truck, or other storage container or vessel that stores or contains flue dust without taking the proper safety measures.

Do not use aluminium containers due to incompatibility of the materials.

Do not store above the following temperature:

No specific recommendation.

7.3. Specific end use(s)

Recommendations:

Hydraulic additive for concrete. For concrete protection and permeability reduction.

Industrial sector specific solutions:

The product is intended for consumer and professional use.

Not available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

Limit values are laid down throughout the EU, but each Member State establishes its own national OELs, often going beyond EU legislation ((IOELV). OELs are set by competent national authorities and other relevant institutions.

EU: Indicative Occupational Exposure Limit Value (IOELV):

Substance name	Limit value 8 hours		Limit value short term	
	mg/m ³	ppm	mg/m ³	ppm
Values not established	-	-	-	-

Latvia (AER, reg.325/2011):

Substance name	Limit value 8 hours		Limit value short term	
	mg/m ³	ppm	mg/m ³	ppm
Cement, portland, chemicals	6	-	-	-
Silicon dioxide	1	-	-	-
Limestone, dolomite (calcium carbonate), minerals	6	-	-	-

Germany, TRGS 900

Substance name	Limit value 8 hours		Limit value short term	
	mg/m ³	ppm	mg/m ³	ppm
Cement, portland, chemicals	5 E	-	-	-
Silicon dioxide	4 E	-	-	-

United Kingdom EH40/2005

Substance name	Limit value 8 hours		Limit value short term	
	mg/m ³	ppm	mg/m ³	ppm
Cement, portland, chemicals: total inhalable respirable	10	-	-	-
	4	-	-	-
Limestone, dolomite (calcium carbonate), minerals: total inhalable respirable	10	-	-	-
	4	-	-	-

Recommended monitoring Procedures:

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

8.2 Manufacturer: Exposure controls

Appropriate engineering Controls:

Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof



Individual protection measures:

Hygiene measures:

ventilation equipment.

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection:



Wear approved glasses or safety goggles according to EN 166 when handling dry or wet flue dust to prevent contact with eyes.

Skin protection:

Hand protection



Use impervious, abrasion and alkali resistant gloves (made of low soluble Cr (VI) containing material) internally lined with cotton complying with an approved standard (EN 374) should be worn.

Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body and skin protection



Wear boots, protective clothing with long closed sleeves. After work, wash in the shower. After work always change clothes and shoes.

Respiratory protection



If during work with dry mixture, there is dust formation risk, respiratory protective equipment should be used:

Reusable respirators and half masks: P2 type dust masks and filters, which comply with EN 143 standard, should be used.

Disposable half masks: Use FFP1 or FFP2 masks that comply with EN 149 standard.

If the mixture is mixed by hand use FFP3 half mask.

Environmental exposure controls:

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Water environment risk control: when mixture reacts with water hydroxides can be formed, which may affect the water pH changes. This may affect the local sewage treatment plants. If there is a predictable wastewater entering the treatment plant, they should be neutralized before entering treatment plant.

Terrestrial environment hazard control measures are not necessary.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

Physical state

Powder.

Colour

Gray.

Odour

No odour.

Odour threshold

Not applicable.

pH

10-13 (Solution).

Melting point/freezing point

> 1000 °C.

Initial boiling point and boiling range

Not available.

Flash point

Not available.

Evaporation rate

Not available.



Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	Not available.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	Not available.
Solubility(ies)	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not available.
9.2. Other information	Not available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity	Not available.
10.2. Chemical stability	Stable under recommended storage conditions.
10.3. Possibility of hazardous reactions	When mixed with water the product forms an alkaline solution, which can cause skin irritation.
10.4. Conditions to avoid	Keep away from water and protect from freezing.
10.5. Incompatible materials	Acids, ammonium compounds, aluminum.
10.6. Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity estimate (ATE): Product is not classified.

Acute toxicity of ingredients: Product is not classified.

	Result	Species	Dose	Note
Cement, portland, chemicals	No known effect according to our database.			

Irritation/ Corrosion: Skin Irrit. 2 H315
Eye Dam. 1 H318

Cement, portland, chemicals	Dermal: Irritating. Eyes: Corrosive.
-----------------------------	---

Sensitisation: Skin Sens. 1B H317

Cement, portland, chemicals	Skin: Sensitizing. Respiratory: No known effect according to our database.
-----------------------------	---

Repeated dose toxicity: Product is not classified.

Cement, portland, chemicals	No known effect according to our database.
-----------------------------	--

Carcinogenicity: Product is not classified.

Cement, portland, chemicals	NOAEL: 2 150 mg/kg bw/day.
-----------------------------	----------------------------

Mutagenicity: Product is not classified.

Cement, portland, chemicals	No known effect according to our database.
-----------------------------	--

Toxicity for reproduction: Product is not classified.

Cement, portland, chemicals	No known effect according to our database.
-----------------------------	--



Specific target organ toxicity. Single / repeated exposure: STOT SE 3 H335

Cement, portland, chemicals	May cause respiratory irritation.
-----------------------------	-----------------------------------

Aspiration hazard

Cement, portland, chemicals	No known effect according to our database.
-----------------------------	--

Potential acute health effects

Inhalation:	Repeated inhalation of dust over a long period of time can increase the risk of lung disease.
Skin contact:	Prolonged contact with the mixture may cause irritation, dermatitis or burns.
Eye contact:	Can result in serious and possibly irreversible eye damage.
Ingestion:	Ingestion of powdered form of the mixture is unlikely, but if it has happened, irritation to the mouth, throat and esophageal is possible.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	A mixture of dust may aggravate existing respiratory diseases (emphysema, asthma). A mixture of dust may irritate the throat and respiratory tract. Possible cough, sneezing, shortness of breath.
Skin contact:	A mixture of dust may aggravate existing skin.
Eye contact:	A mixture of dust may aggravate existing eye diseases.
Ingestion:	A mixture of dust may irritate the throat and respiratory tract. Possible cough, sneezing, shortness of breath.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure:

Potential immediate effects:	Not available.
Potential delayed effects:	Not available.

Long term exposure:

Potential immediate effects:	Not available.
Potential delayed effects:	Not available.

Potential chronic health effects: No known significant effects or critical hazards.

Conclusion/Summary

General	No known significant effects or critical hazards.
Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	No known significant effects or critical hazards.
Developmental effects	No known significant effects or critical hazards.
Fertility effects	No known significant effects or critical hazards.

11.2. Other information

Not available.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Product is not classified.

Cement, portland, chemicals	No known significant effects or critical hazards.
-----------------------------	---

12.2. Biodegradation

No known significant effects or critical hazards.

12.3. Bioaccumulative potential

No known significant effects or critical hazards.

12.4. Mobility in soil

No known significant effects or critical hazards.

12.5. Results of PBT and vPvB assessment

Product (and ingredients) does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH (Regulation (EC) No 1907/2006).

12.6. Other adverse effects

No known significant effects or critical hazards.

SECTION 13: DISPOSAL CONSIDERATIONS

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).



13.1. Waste treatment methods

Product:

Unused mixture

Waste Hazard Code: H4 Irritant: substances and preparations which, through immediate, repeated or prolonged contact with the skin or mucous membranes, causes irritation or inflammatory response.

Classification according to European Waste Catalogue (EWC): 10 13 11 - wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 10.

Waste recovery type: R5 inorganic material processing or purification.

Cement, containing inorganic compounds, is recyclable.

Avoid release in drains, bodies of water and sewer system.

Dispose of hazardous waste or production waste via licensed waste manager, who has received the State Environmental Service permit for the collection, transport, handling, sorting, storage and recovery of waste in accordance with the laws and regulations on pollution.

See Section 8 for appropriate personal protective equipment to be used during processing.

Used product

Further classification is attributed to solidified mixture of sorted construction waste from which cement containing waste has been separated.

Waste Hazard Code: Not classified as dangerous.

Classification according to European Waste Catalogue (EWC): 17 01 01 - Concrete.

Waste not considered as dangerous.

Waste recovery type: R5 inorganic material processing or purification.

Cement, containing inorganic compounds, is recyclable.

Dispose of waste via licensed waste manager, who has the right to collect and recycle construction waste.

Packaging:

Methods of disposal:

The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Can be added to general waste collection after completely emptying. Incineration or landfill should only be considered when recycling is not feasible.

Classification according to European Waste Catalogue (EWC):

20 01 01 - Paper and cardboard

20 01 39 - Plastics

Within the present knowledge of the supplier, packaging is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

SECTION 14: TRANSPORT INFORMATION

This preparation is not classified as dangerous according to international transport regulations (ADR/RID, IMDG or ICAO/IATA).

	ADR/RID	ADN	IMDG	IATA
14.1. UN number	None	None	None	None
14.2. UN proper shipping name	None	None	None	None
14.3. Transport hazard class(es)	None	None	None	None
14.4. Packing group	None	None	None	None
14.5. Environmental hazards	None	None	None	None
14.6. Special precautions for user	None	None	None	None
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.			

SECTION 15: REGULATORY INFORMATION

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

EU Regulation (EC) No. 1907/2006 (REACH):

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling



ARENA FORCE

Waterproofing,
protection
and concrete repair

and packaging of substances and mixtures.

REGULATION (EC) No 648/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on detergents.

ADR - the European Agreement concerning the International Carriage of Dangerous Goods by Road, concluded at Geneva on 30 September 1957, as amended.

RID - the Regulations concerning the International Carriage of Dangerous Goods by Rail, appearing as Appendix C to the Convention concerning International Carriage by Rail (COTIF) concluded at Vilnius on 3 June 1999, as amended.

ADN - the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways concluded at Geneva on 26 May 2000, as amended.

IMDG Code - International Maritime Dangerous Goods Code.

IATA/ICAO: ICAO - International Civil Aviation Organization. IATA - International Air Transport Association.

MARPOL 73/78 - International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978.

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH):

Annex XIV - List of substances subject to authorization: Substances of very high concern: None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles: Not applicable.

15.2. Chemical safety assessment

Chemical Safety Assessment following regulation 1907/2006/EC:

This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms:

Full text of abbreviations

CLP: Classification, Labelling and Packaging Regulation [Regulation (EC) No.1272/2008]
ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
RID: International Rule for Transport of Dangerous Substances by Railway
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
CAS: Chemical Abstracts Service
EINECS: European Inventory of Existing Commercial chemical Substances
LC50: Median lethal concentration
LD50: Median lethal dose
REACH: Registration, Evaluation and Authorisation of Chemicals
PBT: Persistent, bio-accumulative and toxic
vPvB: Very persistent, very bio-accumulative
bw: Body Weight.

Full text of classifications and H statements [CLP/GHS]:

Skin Irrit. 2; Skin corrosion/irritation, Hazard Category 2, H315 Causes skin irritation.
Skin Sens. 1B, Sensitisation — Skin, hazard category 1B; H317 May cause an allergic skin reaction.
Eye Dam. 1, Serious eye damage/eye irritation, Hazard Category 1; H318 Causes serious eye damage.
STOT SE 3; Specific target organ toxicity — Single exposure, Hazard Category 3, Respiratory tract irritation,
H335 May cause respiratory irritation.

Product classification according to Regulation (EC) 1272/2008 (CLP)

Classification for health effects:

Skin Irritation/corrosion (conventional method used):

Cement, portland, chemicals: 40-50%, Skin Irrit. 2; H315
Calcium dihydroxide: 10-15%, Skin Irrit. 2, H315
 $15/10+50/10=6,5 >1 \Rightarrow$ **Skin Irrit. 2, H315**



ARENA FORCE

Waterproofing,
protection
and concrete repair

Skin sensitisation (conventional method used):

Cement, portland, chemicals: 40-50%, Skin Sens. 1B, H317

Concentration more than 1% => Skin Sens. 1B, H317

Eye Irritation/corrosion (conventional method used):

Cement, portland, chemicals: 40-50%, Eye Dam. 1, H318

Calcium dihydroxide: 10-15%, Eye Dam. 1, H318

$15/3+50/3=21.67 >1$ => **Eye Dam. 1, H318**

Specific target organ toxicity (conventional method used):

Cement, portland, chemicals: 40-50%, STOT SE 3, H335

Calcium dihydroxide: 10-15%, STOT SE 3, H335

Concentration more than 20% => STOT SE 3, H335

Training advice:

In addition to health, safety and environmental training programs for their workers, companies must ensure that workers read, understand and apply the requirements of this SDS.

DISCLAIMER OF LIABILITY:

The information in this MSDS 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 method 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.

END OF SAFETY DATA SHEET

General Director of LLC "Waterproofing plant"ARENA"



L. A. Nikitina



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ARENA InMix PN; ARENA SeamMaster PT; ARENA PlugMix PW; ARENA PolyElast PE; ARENA DryDeform

Version : 01

Date of revision :23/11/2017

SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II - Europe

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

1.1. Product identifier

ARENA InMix PN; ARENA SeamMaster PT; ARENA PlugMix PW; ARENA PolyElast PE; ARENA DryDeform

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

Used to repair (recovery), waterproofing and corrosion protection of building structures. The product is intended for consumer and professional use.

1.3. Details of the supplier of the safety data sheet

Manufacturer:

LLC "Waterproofing plant" ARENA "

Postal and legal address: 620131, Ekaterinburg, Metallurgov Street, Building 84, Apt. 616

E-mail: info@arenamesi.ru

Phone: +7 (343) 357-90-77; 8-800-511-06-86;

Homepage: www.arenamesi.ru

E-mail: info@arenamesi.ru

Information issuing department: info@arenamesi.ru

Provider

LLC "Waterproofing plant" ARENA "

Postal and legal address: 620131, Ekaterinburg, Metallurgov Street, Building 84, Apt. 616

E-mail: info@arenamesi.ru

Phone: +7 (343) 357-90-77; 8-800-511-06-86;

Homepage: www.arenamesi.ru

E-mail: info@arenamesi.ru

Information issuing department: info@arenamesi.ru

1.4. Emergency telephone number

EU:112

Emergency telephone for other regions to be filled out by local business

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Product definition Mixture

Classification according to regulation (EC) No 1272/2008:

Classification: Skin Irrit. 2, H315

Skin Sens. 1B, H317

Eye Dam. 1, H318

STOT SE 3, H335



2.2. Label elements

According to regulation (EC) No 1272/2008:

Symbol:
(Size: 16x16 mm, not less 1cm²)



Signal word:
Hazard statements:

Danger

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

Hazardous ingredients:

Contain: Cement, portland, chemicals; Calcium dihydroxide.

Precautionary statements:

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P261 Avoid breathing dust.

P264 Wash hands thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear eye/face protection.

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

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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

P362+P363 Take off contaminated clothing. Wash contaminated clothing before reuse.

P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

P501 Dispose of: empty container as a household waste into the appropriate collection site / unused content to a licensed hazardous-waste disposal contractor in accordance with regulation.

Supplemental label elements

Not relevant.

Special packaging requirements

Containers to be fitted with child-resistant fastenings:

No, not applicable.

Tactile warning of danger Δ :

No, not applicable.

2.3. Other hazards

Product does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH (Regulation (EC) No 1907/2006).

See section 11 for more detailed information on health effects and symptoms.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Mixture

Ingredient name	Identifiers	Conc. %	Classification according to Regulation (EC) 1272/2008 (CLP)	Type
Cement, portland, chemicals	EINECS: 266-043-4 CAS: 65997-15-1 INDEX: Not available. REACH: Exempted from registration ¹ .	50-90	Skin Irrit. 2, H315 Skin Sens. 1B, H317 Eye Dam. 1, H318 STOT SE 3, H335 (lung, bronchi,...) (Inhalation)	[1] [2]
Crystalline Silica, Quartz. Crystalline	EINECS: 231-545-4	10-50	STOT SE 3, H335 (Respiratory tra...)	[1] [2]



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Silicon Dioxide	CAS: 7631-86-9, 112926-00-8 INDEX: Not available. REACH: Exempted from registration 1	(Inhalation)	
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There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

See section 16 for the full text of the H phrases declared above.

Occupational exposure limits, if available, are listed in section 8.

Type:

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

¹ Exempted from registration. The exception under REACH Regulation Article 2, paragraph 7 b) and Annex V, paragraph 10 (cement).

² Exempted from registration. The exception under REACH Regulation Article 2, paragraph 7 b) and Annex V, paragraph 7 (natural minerals).

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General notes:	No personal protective equipment is needed for first aid responders. First aid workers should avoid contact with wet flue dust or flue dust containing preparations.
Eye contact:	Do not rub eyes in order to avoid possible corneal damage by mechanical stress. Remove contact lenses if any. Incline head to injured eye, open the eyelids widely and flush eye(s) immediately by thoroughly rinsing with plenty of clean water for at least 20 minutes to remove all particles. Avoid flushing particles into uninjured eye. Contact a specialist of occupational medicine or an eye specialist.
Skin contact:	For dry mixture, remove and rinse skin abundantly with plenty of water. For wet/damp mixture, wash skin with plenty of water. Remove contaminated clothing, footwear, watches, etc. and clean thoroughly before re-using them. Seek medical treatment in all cases of irritation or burns. In case of irritation or chemical burns, get medical attention immediately.
Inhalation:	Move the person to fresh air. Dust in throat and nasal passages should clear spontaneously. Contact a physician if irritation persists or later develops or if discomfort, coughing or other symptoms persist.
Ingestion:	Do not induce vomiting. If the person is conscious, wash out mouth with water and give plenty of water to drink. Get immediate medical attention or contact the anti-poison centre.

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

Inhalation:	Ingestion of powdered form of the mixture is unlikely, but if it has happened, irritation to the mouth, throat and esophageal is possible.
Skin contact:	Mixture may cause an irritating effect or dermatitis after prolonged contact or after repeated contact with moist skin (due to sweat or humidity).
Eye contact:	Eye contact with flue dust (dry or wet) may cause serious and potentially irreversible injuries.
Ingestion:	Ingestion of powdered form of the mixture is unlikely, but if it has happened, irritation to the mouth, throat and esophageal is possible.

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

Specific treatments: Treat symptomatically. Contact poison treatment specialist immediately. When contacting a physician, take this SDS with you.

See section 11 for more detailed information on health effects and symptoms.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Mixture is not flammable. In case of fire use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media: None known.

5.2. Special hazards arising from the substance or mixture

The dry mixture is not combustible and does not contribute to combustion. When extinguishing fire place with water, at which the mixture is stocked, it should be taken into account that the wet mixture is highly alkaline, which may pose a risk to the health of firefighters, as well as cause a



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reaction with other substances involved in a fire.

5.3. Advice for firefighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel:

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapour or mist. Avoid dust formation. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

6.1.2. For emergency responders:

Sweep up to prevent slipping hazard. If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also Section 8 for additional information on hygiene measures.

6.2. Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3. Methods and material for containment and cleaning up

Clean up methods:

Collect spilled material mechanically and use it for its intended purpose, if it is not significantly contaminated or become damp.

Use dry cleanup methods such as vacuum clean-up or vacuum extraction (Industrial portable units equipped with high efficiency air filters (EPA and HEPA filters, EN 1822-1:2009) or equivalent technique) which does not cause airborne dispersion. Never use compressed air for surface cleaning. Ensure that the workers wear appropriate personal protective equipment and prevent dust from spreading.

Other instructions:

Avoid inhalation of dust and contact of with skin. Place spilled material in a container for future use. In case of very large spill, if there is a threat to the environment, contact the local competent authorities (Firefighting and rescue services, local government, the State Environmental Service).

6.4. Reference to other sections

See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information

SECTION 7: HANDLING AND STORAGE

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1. Precautions for safe handling

Protective measures:

Put on appropriate personal protective equipment (see Section 8). For cleanup of mixture, see Subsection 6.3. Do not get in eyes or on skin or clothing. Do not breathe dust. Do not ingest. Avoid the creation of dust when handling, to avoid creation of dust and aerosol: do not sweep mixture, use dry cleanup methods such as vacuum clean-up or vacuum extraction, which do not cause airborne dispersion. Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and



occupational hygiene:

processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2. Conditions for safe storage, including any incompatibilities

Storage:

Mixture should be stored under waterproof, dry (i.e. with internal condensation minimised) conditions, clean and protected from contamination.

Engulfment hazard: mixture can build-up or adhere to the walls of a confined space. The mixture can release, collapse or fall unexpectedly. To prevent engulfment or suffocation, do not enter a confined space, such as a silo, bin, bulk truck, or other storage container or vessel that stores or contains flue dust without taking the proper safety measures.

Do not use aluminium containers due to incompatibility of the materials.

Do not store above the following temperature:

No specific recommendation.

7.3. Specific end use(s)

Recommendations:

Hydraulic additive for concrete. For concrete protection and permeability reduction.

The product is intended for consumer and professional use.

Industrial sector specific solutions:

Not available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

Limit values are laid down throughout the EU, but each Member State establishes its own national OELs, often going beyond EU legislation ((IOELV). OELs are set by competent national authorities and other relevant institutions.

EU: Indicative Occupational Exposure Limit Value (IOELV):

Substance name	Limit value 8 hours		Limit value short term	
	mg/m ³	ppm	mg/m ³	ppm
Values not established	-	-	-	-

Latvia (AER, reg.325/2011):

Substance name	Limit value 8 hours		Limit value short term	
	mg/m ³	ppm	mg/m ³	ppm
Cement, portland, chemicals	6	-	-	-
Silicon dioxide	1	-	-	-
Limestone, dolomite (calcium carbonate), minerals	6	-	-	-

Germany, TRGS 900

Substance name	Limit value 8 hours		Limit value short term	
	mg/m ³	ppm	mg/m ³	ppm
Cement, portland, chemicals	5 E	-	-	-
Silicon dioxide	4 E	-	-	-

United Kingdom EH40/2005

Substance name	Limit value 8 hours		Limit value short term	
	mg/m ³	ppm	mg/m ³	ppm
Cement, portland, chemicals:	total inhalable	10	-	-
	respirable	4	-	-
Limestone, dolomite (calcium carbonate), minerals:	total inhalable	10	-	-
	respirable	4	-	-

Recommended monitoring Procedures:

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other



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control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

8.2 Manufacturer: Exposure controls

Appropriate engineering
Controls:

Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures:

Hygiene measures:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection:



Wear approved glasses or safety goggles according to EN 166 when handling dry or wet flue dust to prevent contact with eyes.

Skin protection:

Hand protection



Use impervious, abrasion and alkali resistant gloves (made of low soluble Cr (VI) containing material) internally lined with cotton complying with an approved standard (EN 374) should be worn. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body and skin protection



Wear boots, protective clothing with long closed sleeves. After work, wash in the shower. After work always change clothes and shoes.

Respiratory protection



If during work with dry mixture, there is dust formation risk, respiratory protective equipment should be used:

Reusable respirators and half masks: P2 type dust masks and filters, which comply with EN 143 standard, should be used.

Disposable half masks: Use FFP1 or FFP2 masks that comply with EN 149 standard.

If the mixture is mixed by hand use FFP3 half mask.

Environmental exposure controls:

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Water environment risk control: when mixture reacts with water hydroxides can be formed, which may affect the water pH changes. This may affect the local sewage treatment plants. If there is a predictable wastewater entering the treatment plant, they should be neutralized before entering treatment plant.

Terrestrial environment hazard control measures are not necessary.



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9.1 Information on basic physical and chemical properties

Appearance	
Physical state	Powder.
Colour	Gray.
Odour	No odour.
Odour threshold	Not applicable.
pH	10-13 (Solution).
Melting point/freezing point	> 1000 °C.
Initial boiling point and boiling range	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	Not available.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	Not available.
Solubility(ies)	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not available.
9.2. Other information	Not available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity	Not available.
10.2. Chemical stability	Stable under recommended storage conditions.
10.3. Possibility of hazardous reactions	When mixed with water the product forms an alkaline solution, which can cause skin irritation.
10.4. Conditions to avoid	Keep away from water and protect from freezing.
10.5. Incompatible materials	Acids, ammonium compounds, aluminum.
10.6. Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects
 Acute toxicity estimate (ATE): Product is not classified.
 Acute toxicity of ingredients: Product is not classified.

	Result	Species	Dose	Note
Cement, portland, chemicals	No known effect according to our database.			

Irritation/ Corrosion:	Skin Irrit. 2 H315 Eye Dam. 1 H318
Cement, portland, chemicals	Dermal: Irritating.



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	Eyes: Corrosive.
Sensitisation:	Skin Sens. 1B H317
Cement, portland, chemicals	Skin: Sensitizing. Respiratory: No known effect according to our database.
Repeated dose toxicity:	Product is not classified.
Cement, portland, chemicals	No known effect according to our database.
Carcinogenicity:	Product is not classified.
Cement, portland, chemicals	NOAEL: 2 150 mg/kg bw/day.
Mutagenicity:	Product is not classified.
Cement, portland, chemicals	No known effect according to our database.
Toxicity for reproduction:	Product is not classified.
Cement, portland, chemicals	No known effect according to our database.
Specific target organ toxicity. Single / repeated exposure: STOT SE 3 H335	
Cement, portland, chemicals	May cause respiratory irritation.
Aspiration hazard	
Cement, portland, chemicals	No known effect according to our database.

Potential acute health effects

Inhalation:	Repeated inhalation of dust over a long period of time can increase the risk of lung disease.
Skin contact:	Prolonged contact with the mixture may cause irritation, dermatitis or burns.
Eye contact:	Can result in serious and possibly irreversible eye damage.
Ingestion:	Ingestion of powdered form of the mixture is unlikely, but if it has happened, irritation to the mouth, throat and esophageal is possible.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	A mixture of dust may aggravate existing respiratory diseases (emphysema, asthma). A mixture of dust may irritate the throat and respiratory tract. Possible cough, sneezing, shortness of breath.
Skin contact:	A mixture of dust may aggravate existing skin.
Eye contact:	A mixture of dust may aggravate existing eye diseases.
Ingestion:	A mixture of dust may irritate the throat and respiratory tract. Possible cough, sneezing, shortness of breath.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure:

Potential immediate effects:	Not available.
Potential delayed effects:	Not available.

Long term exposure:

Potential immediate effects:	Not available.
Potential delayed effects:	Not available.

Potential chronic health effects: No known significant effects or critical hazards.

Conclusion/Summary

General	No known significant effects or critical hazards.
Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	No known significant effects or critical hazards.
Developmental effects	No known significant effects or critical hazards.
Fertility effects	No known significant effects or critical hazards.

11.2. Other information

Not available.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Product is not classified.

Cement, portland, chemicals	No known significant effects or critical hazards.
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12.2. Biodegradation

No known significant effects or critical hazards.

12.3. Bioaccumulative potential



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- 12.4. Mobility in soil No known significant effects or critical hazards.
- 12.5. Results of PBT and vPvB assessment No known significant effects or critical hazards.
Product (and ingredients) does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH (Regulation (EC) No 1907/2006).
- 12.6. Other adverse effects No known significant effects or critical hazards.

SECTION 13: DISPOSAL CONSIDERATIONS

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1. Waste treatment methods

Product:

Unused mixture

Waste Hazard Code: H4 Irritant: substances and preparations which, through immediate, repeated or prolonged contact with the skin or mucous membranes, causes irritation or inflammatory response.

Classification according to European Waste Catalogue (EWC): 10 13 11 - wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 10.

Waste recovery type: R5 inorganic material processing or purification.

Cement, containing inorganic compounds, is recyclable.

Avoid release in drains, bodies of water and sewer system.

Dispose of hazardous waste or production waste via licensed waste manager, who has received the State Environmental Service permit for the collection, transport, handling, sorting, storage and recovery of waste in accordance with the laws and regulations on pollution.

See Section 8 for appropriate personal protective equipment to be used during processing.

Used product

Further classification is attributed to solidified mixture of sorted construction waste from which cement containing waste has been separated.

Waste Hazard Code: Not classified as dangerous.

Classification according to European Waste Catalogue (EWC): 17 01 01 - Concrete.

Waste not considered as dangerous.

Waste recovery type: R5 inorganic material processing or purification.

Cement, containing inorganic compounds, is recyclable.

Dispose of waste via licensed waste manager, who has the right to collect and recycle construction waste.

Packaging:

Methods of disposal:

The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Can be added to general waste collection after completely emptying. Incineration or landfill should only be considered when recycling is not feasible.

Classification according to European Waste Catalogue (EWC):

20 01 01 - Paper and cardboard

20 01 39 - Plastics

Within the present knowledge of the supplier, packaging is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

SECTION 14: TRANSPORT INFORMATION

This preparation is not classified as dangerous according to international transport regulations (ADR/RID, IMDG or ICAO/IATA).

	ADR/RID	ADN	IMDG	IATA
14.1. UN number	None	None	None	None
14.2. UN proper shipping name	None	None	None	None
14.3. Transport hazard class(es)	None	None	None	None



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14.4. Packing group	None	None	None	None
14.5. Environmental hazards	None	None	None	None
14.6. Special precautions for user	None	None	None	None
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.			

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture EU Regulation (EC) No. 1907/2006 (REACH):

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures.

REGULATION (EC) No 648/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on detergents.

ADR - the European Agreement concerning the International Carriage of Dangerous Goods by Road, concluded at Geneva on 30 September 1957, as amended.

RID - the Regulations concerning the International Carriage of Dangerous Goods by Rail, appearing as Appendix C to the Convention concerning International Carriage by Rail (COTIF) concluded at Vilnius on 3 June 1999, as amended.

ADN - the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways concluded at Geneva on 26 May 2000, as amended.

IMDG Code - International Maritime Dangerous Goods Code.

IATA/ICAO: ICAO - International Civil Aviation Organization. IATA - International Air Transport Association.

MARPOL 73/78 - International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978.

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH):

Annex XIV - List of substances subject to authorization: Substances of very high concern: None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles: Not applicable.

15.2. Chemical safety assessment

Chemical Safety Assessment following regulation 1907/2006/EC: This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms:

Full text of abbreviations

CLP: Classification, Labelling and Packaging Regulation [Regulation (EC) No.1272/2008]
ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
RID: International Rule for Transport of Dangerous Substances by Railway
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
CAS: Chemical Abstracts Service
EINECS: European Inventory of Existing Commercial chemical Substances
LC50: Median lethal concentration
LD50: Median lethal dose
REACH: Registration, Evaluation and Authorisation of Chemicals
PBT: Persistent, bio-accumulative and toxic



ARENA
FORCE

Full text of classifications and H statements [CLP/GHS]:	vPvB: Very persistent, very bio-accumulative bw: Body Weight. Skin Irrit. 2; Skin corrosion/irritation, Hazard Category 2, H315 Causes skin irritation. Skin Sens. 1B, Sensitisation — Skin, hazard category 1B; H317 May cause an allergic skin reaction. Eye Dam. 1, Serious eye damage/eye irritation, Hazard Category 1; H318 Causes serious eye damage. STOT SE 3; Specific target organ toxicity — Single exposure, Hazard Category 3, Respiratory tract irritation, H335 May cause respiratory irritation.
Product classification according to Regulation (EC) 1272/2008 (CLP)	Classification for health effects: Skin Irritation/corrosion (conventional method used): Cement, portland, chemicals: 40-50%, Skin Irrit. 2; H315 Calcium dihydroxide: 10-15%, Skin Irrit. 2, H315 $15/10+50/10=6,5 >1 \Rightarrow$ Skin Irrit. 2, H315 Skin sensitisation (conventional method used): Cement, portland, chemicals: 40-50%, Skin Sens. 1B, H317 <i>Concentration more than 1% => Skin Sens. 1B, H317</i> Eye Irritation/corrosion (conventional method used): Cement, portland, chemicals: 40-50%, Eye Dam. 1, H318 Calcium dihydroxide: 10-15%, Eye Dam. 1, H318 $15/3+50/3=21.67 >1 \Rightarrow$ Eye Dam. 1, H318 Specific target organ toxicity (conventional method used): Cement, portland, chemicals: 40-50%, STOT SE 3, H335 Calcium dihydroxide: 10-15%, STOT SE 3, H335 <i>Concentration more than 20% => STOT SE 3, H335</i>
Training advice:	In addition to health, safety and environmental training programs for their workers, companies must ensure that workers read, understand and apply the requirements of this SDS.
DISCLAIMER OF LIABILITY:	The information in this MSDS 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 method 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.

END OF SAFETY DATA SHEET



ARENA FORCE

Waterproofing,
protection
and concrete repair

ARENA EcoMix, ARENA BiMix NS/PC

Version : 02

Date of revision :12/09/2017

SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II - Europe

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

1.1. Product identifier

ARENA EcoMix, ARENA BiMix NS/PC

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

Used to repair (recovery), waterproofing and corrosion protection of building structures. The product is intended for consumer and professional use.

1.3. Details of the supplier of the safety data sheet

Manufacturer:

LLC "Waterproofing plant" ARENA "

Postal and legal address: 620131, Ekaterinburg, Metallurgov Street, Building 84, Apt. 616

E-mail: info@arenasmesi.ru

Phone: +7 (343) 357-90-77; 8-800-511-06-86;

Homepage: www.arenasmesi.ru

E-mail: info@arenasmesi.ru

Provider

Information issuing department: info@arenasmesi.ru

LLC "Waterproofing plant" ARENA "

Postal and legal address: 620131, Ekaterinburg, Metallurgov Street, Building 84, Apt. 616

E-mail: info@arenasmesi.ru

Phone: +7 (343) 357-90-77; 8-800-511-06-86;

Homepage: www.arenasmesi.ru

E-mail: info@arenasmesi.ru

Information issuing department: info@arenasmesi.ru

1.4. Emergency telephone number

EU:112

Emergency telephone for other regions to be filled out by local business

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Product definition Mixture

Classification according to regulation (EC) No 1272/2008:

Classification:

Skin Irrit. 2, H315

Skin Sens. 1B, H317

Eye Dam. 1, H318

STOT SE 3, H335



2.2. Label elements

According to regulation (EC) No 1272/2008:

Symbol:
(Size: 16x16 mm, not less 1cm²)



Signal word:

Hazard statements:

Hazardous ingredients:

Precautionary statements:

Danger

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

Contain: Cement, portland, chemicals; Calcium dihydroxide.

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P261 Avoid breathing dust.

P264 Wash hands thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear eye/face protection.

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

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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

P362+P363 Take off contaminated clothing. Wash contaminated clothing before reuse.

P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

P501 Dispose of: empty container as a household waste into the appropriate collection site / unused content to a licensed hazardous-waste disposal contractor in accordance with regulation.

Supplemental label elements

Not relevant.

Special packaging requirements

Containers to be fitted with child-resistant fastenings:

No, not applicable.

Tactile warning of danger Δ :

No, not applicable.

2.3. Other hazards

Product does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH (Regulation (EC) No 1907/2006).

See section 11 for more detailed information on health effects and symptoms.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Mixture

Ingredient name	Identifiers	Conc. %	Classification according to Regulation (EC) 1272/2008 (CLP)	Type
Cement, portland, chemicals	EINECS: 266-043-4 CAS: 65997-15-1 INDEX: Not available. REACH: Exempted from registration ¹ .	50-90	Skin Irrit. 2, H315 Skin Sens. 1B, H317 Eye Dam. 1, H318 STOT SE 3, H335 (lung, bronchi,...) (Inhalation)	[1] [2]
Crystalline Silica, Quartz. Crystalline Silicon Dioxide	EINECS: 231-545-4 CAS: 7631-86-9, 112926-00-8 INDEX: Not available.	10-50	STOT SE 3, H335 (Respiratory tra...) (Inhalation)	[1] [2]



	REACH: Exempted from registration 1		
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There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

See section 16 for the full text of the H phrases declared above.

Occupational exposure limits, if available, are listed in section 8.

Type:

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

¹ Exempted from registration. The exception under REACH Regulation Article 2, paragraph 7 b) and Annex V, paragraph 10 (cement).

² Exempted from registration. The exception under REACH Regulation Article 2, paragraph 7 b) and Annex V, paragraph 7 (natural minerals).

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General notes:	No personal protective equipment is needed for first aid responders. First aid workers should avoid contact with wet flue dust or flue dust containing preparations.
Eye contact:	Do not rub eyes in order to avoid possible corneal damage by mechanical stress. Remove contact lenses if any. Incline head to injured eye, open the eyelids widely and flush eye(s) immediately by thoroughly rinsing with plenty of clean water for at least 20 minutes to remove all particles. Avoid flushing particles into uninjured eye. Contact a specialist of occupational medicine or an eye specialist.
Skin contact:	For dry mixture, remove and rinse skin abundantly with plenty of water. For wet/damp mixture, wash skin with plenty of water. Remove contaminated clothing, footwear, watches, etc. and clean thoroughly before re-using them. Seek medical treatment in all cases of irritation or burns. In case of irritation or chemical burns, get medical attention immediately.
Inhalation:	Move the person to fresh air. Dust in throat and nasal passages should clear spontaneously. Contact a physician if irritation persists or later develops or if discomfort, coughing or other symptoms persist.
Ingestion:	Do not induce vomiting. If the person is conscious, wash out mouth with water and give plenty of water to drink. Get immediate medical attention or contact the anti-poison centre.

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

Inhalation:	Ingestion of powdered form of the mixture is unlikely, but if it has happened, irritation to the mouth, throat and esophageal is possible.
Skin contact:	Mixture may cause an irritating effect or dermatitis after prolonged contact or after repeated contact with moist skin (due to sweat or humidity).
Eye contact:	Eye contact with flue dust (dry or wet) may cause serious and potentially irreversible injuries.
Ingestion:	Ingestion of powdered form of the mixture is unlikely, but if it has happened, irritation to the mouth, throat and esophageal is possible.

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

Specific treatments:	Treat symptomatically. Contact poison treatment specialist immediately. When contacting a physician, take this SDS with you.
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See section 11 for more detailed information on health effects and symptoms.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media:	Mixture is not flammable. In case of fire use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media:	None known.

5.2. Special hazards arising from the substance or mixture

The dry mixture is not combustible and does not contribute to combustion. When extinguishing fire place with water, at which the mixture is stocked, it should be taken into account that the wet mixture is highly alkaline, which may pose a risk to the health of firefighters, as well as cause a reaction with other substances involved in a fire.

5.3. Advice for firefighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Fire water



contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel:

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapour or mist. Avoid dust formation. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

6.1.2. For emergency responders:

Sweep up to prevent slipping hazard. If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also Section 8 for additional information on hygiene measures.

6.2. Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3. Methods and material for containment and cleaning up

Clean up methods:

Collect spilled material mechanically and use it for its intended purpose, if it is not significantly contaminated or become damp.

Use dry cleanup methods such as vacuum clean-up or vacuum extraction (Industrial portable units equipped with high efficiency air filters (EPA and HEPA filters, EN 1822-1:2009) or equivalent technique) which does not cause airborne dispersion. Never use compressed air for surface cleaning. Ensure that the workers wear appropriate personal protective equipment and prevent dust from spreading.

Other instructions:

Avoid inhalation of dust and contact of with skin. Place spilled material in a container for future use. In case of very large spill, if there is a threat to the environment, contact the local competent authorities (Firefighting and rescue services, local government, the State Environmental Service).

6.4. Reference to other sections

See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information

SECTION 7: HANDLING AND STORAGE

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1. Precautions for safe handling

Protective measures:

Put on appropriate personal protective equipment (see Section 8). For cleanup of mixture, see Subsection 6.3. Do not get in eyes or on skin or clothing. Do not breathe dust. Do not ingest. Avoid the creation of dust when handling, to avoid creation of dust and aerosol: do not sweep mixture, use dry cleanup methods such as vacuum clean-up or vacuum extraction, which do not cause airborne dispersion. Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene:

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2. Conditions for safe storage, including any incompatibilities

Storage:

Mixture should be stored under waterproof, dry (i.e. with internal condensation minimised) conditions, clean and protected from contamination.



Engulfment hazard: mixture can build-up or adhere to the walls of a confined space. The mixture can release, collapse or fall unexpectedly. To prevent engulfment or suffocation, do not enter a confined space, such as a silo, bin, bulk truck, or other storage container or vessel that stores or contains flue dust without taking the proper safety measures.

Do not use aluminium containers due to incompatibility of the materials.

Do not store above the following temperature:

No specific recommendation.

7.3. Specific end use(s)

Recommendations:

Hydraulic additive for concrete. For concrete protection and permeability reduction.

Industrial sector specific solutions:

The product is intended for consumer and professional use.

Not available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

Limit values are laid down throughout the EU, but each Member State establishes its own national OELs, often going beyond EU legislation ((IOELV). OELs are set by competent national authorities and other relevant institutions.

EU: Indicative Occupational Exposure Limit Value (IOELV):

Substance name	Limit value 8 hours		Limit value short term	
	mg/m ³	ppm	mg/m ³	ppm
Values not established	-	-	-	-

Latvia (AER, reg.325/2011):

Substance name	Limit value 8 hours		Limit value short term	
	mg/m ³	ppm	mg/m ³	ppm
Cement, portland, chemicals	6	-	-	-
Silicon dioxide	1	-	-	-
Limestone, dolomite (calcium carbonate), minerals	6	-	-	-

Germany, TRGS 900

Substance name	Limit value 8 hours		Limit value short term	
	mg/m ³	ppm	mg/m ³	ppm
Cement, portland, chemicals	5 E	-	-	-
Silicon dioxide	4 E	-	-	-

United Kingdom EH40/2005

Substance name	Limit value 8 hours		Limit value short term	
	mg/m ³	ppm	mg/m ³	ppm
Cement, portland, chemicals: total inhalable respirable	10	-	-	-
	4	-	-	-
Limestone, dolomite (calcium carbonate), minerals: total inhalable respirable	10	-	-	-
	4	-	-	-

Recommended monitoring Procedures:

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

8.2 Manufacturer: Exposure controls

Appropriate engineering Controls:

Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof



Individual protection measures:

Hygiene measures:

ventilation equipment.

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection:



Wear approved glasses or safety goggles according to EN 166 when handling dry or wet flue dust to prevent contact with eyes.

Skin protection:

Hand protection



Use impervious, abrasion and alkali resistant gloves (made of low soluble Cr (VI) containing material) internally lined with cotton complying with an approved standard (EN 374) should be worn.

Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body and skin protection



Wear boots, protective clothing with long closed sleeves. After work, wash in the shower. After work always change clothes and shoes.

Respiratory protection



If during work with dry mixture, there is dust formation risk, respiratory protective equipment should be used:

Reusable respirators and half masks: P2 type dust masks and filters, which comply with EN 143 standard, should be used.

Disposable half masks: Use FFP1 or FFP2 masks that comply with EN 149 standard.

If the mixture is mixed by hand use FFP3 half mask.

Environmental exposure controls:

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Water environment risk control: when mixture reacts with water hydroxides can be formed, which may affect the water pH changes. This may affect the local sewage treatment plants. If there is a predictable wastewater entering the treatment plant, they should be neutralized before entering treatment plant.

Terrestrial environment hazard control measures are not necessary.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

Physical state

Powder.

Colour

Gray.

Odour

No odour.

Odour threshold

Not applicable.

pH

10-13 (Solution).

Melting point/freezing point

> 1000 °C.

Initial boiling point and boiling range

Not available.

Flash point

Not available.

Evaporation rate

Not available.



Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	Not available.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	Not available.
Solubility(ies)	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not available.
9.2. Other information	Not available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Not available.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

When mixed with water the product forms an alkaline solution, which can cause skin irritation.

10.4. Conditions to avoid

Keep away from water and protect from freezing.

10.5. Incompatible materials

Acids, ammonium compounds, aluminum.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity estimate (ATE): Product is not classified.

Acute toxicity of ingredients: Product is not classified.

	Result	Species	Dose	Note
Cement, portland, chemicals	No known effect according to our database.			

Irritation/ Corrosion: Skin Irrit. 2 H315
Eye Dam. 1 H318

Cement, portland, chemicals	Dermal: Irritating. Eyes: Corrosive.			
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Sensitisation: Skin Sens. 1B H317

Cement, portland, chemicals	Skin: Sensitizing. Respiratory: No known effect according to our database.			
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Repeated dose toxicity: Product is not classified.

Cement, portland, chemicals	No known effect according to our database.			
-----------------------------	--	--	--	--

Carcinogenicity: Product is not classified.

Cement, portland, chemicals	NOAEL: 2 150 mg/kg bw/day.			
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Mutagenicity: Product is not classified.

Cement, portland, chemicals	No known effect according to our database.			
-----------------------------	--	--	--	--

Toxicity for reproduction: Product is not classified.

Cement, portland, chemicals	No known effect according to our database.			
-----------------------------	--	--	--	--



Specific target organ toxicity. Single / repeated exposure: STOT SE 3 H335

Cement, portland, chemicals	May cause respiratory irritation.
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Aspiration hazard

Cement, portland, chemicals	No known effect according to our database.
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Potential acute health effects

Inhalation:	Repeated inhalation of dust over a long period of time can increase the risk of lung disease.
Skin contact:	Prolonged contact with the mixture may cause irritation, dermatitis or burns.
Eye contact:	Can result in serious and possibly irreversible eye damage.
Ingestion:	Ingestion of powdered form of the mixture is unlikely, but if it has happened, irritation to the mouth, throat and esophageal is possible.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	A mixture of dust may aggravate existing respiratory diseases (emphysema, asthma). A mixture of dust may irritate the throat and respiratory tract. Possible cough, sneezing, shortness of breath.
Skin contact:	A mixture of dust may aggravate existing skin.
Eye contact:	A mixture of dust may aggravate existing eye diseases.
Ingestion:	A mixture of dust may irritate the throat and respiratory tract. Possible cough, sneezing, shortness of breath.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure:

Potential immediate effects:	Not available.
Potential delayed effects:	Not available.

Long term exposure:

Potential immediate effects:	Not available.
Potential delayed effects:	Not available.

Potential chronic health effects: No known significant effects or critical hazards.

Conclusion/Summary

General	No known significant effects or critical hazards.
Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	No known significant effects or critical hazards.
Developmental effects	No known significant effects or critical hazards.
Fertility effects	No known significant effects or critical hazards.

11.2. Other information

Not available.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Product is not classified.

Cement, portland, chemicals	No known significant effects or critical hazards.
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12.2. Biodegradation

No known significant effects or critical hazards.

12.3. Bioaccumulative potential

No known significant effects or critical hazards.

12.4. Mobility in soil

No known significant effects or critical hazards.

12.5. Results of PBT and vPvB assessment

Product (and ingredients) does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH (Regulation (EC) No 1907/2006).

12.6. Other adverse effects

No known significant effects or critical hazards.

SECTION 13: DISPOSAL CONSIDERATIONS

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).



13.1. Waste treatment methods

Product:

Unused mixture

Waste Hazard Code: H4 Irritant: substances and preparations which, through immediate, repeated or prolonged contact with the skin or mucous membranes, causes irritation or inflammatory response.

Classification according to European Waste Catalogue (EWC): 10 13 11 - wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 10.

Waste recovery type: R5 inorganic material processing or purification.

Cement, containing inorganic compounds, is recyclable.

Avoid release in drains, bodies of water and sewer system.

Dispose of hazardous waste or production waste via licensed waste manager, who has received the State Environmental Service permit for the collection, transport, handling, sorting, storage and recovery of waste in accordance with the laws and regulations on pollution.

See Section 8 for appropriate personal protective equipment to be used during processing.

Further classification is attributed to solidified mixture of sorted construction waste from which cement containing waste has been separated.

Waste Hazard Code: Not classified as dangerous.

Classification according to European Waste Catalogue (EWC): 17 01 01 - Concrete.

Waste not considered as dangerous.

Waste recovery type: R5 inorganic material processing or purification.

Cement, containing inorganic compounds, is recyclable.

Dispose of waste via licensed waste manager, who has the right to collect and recycle construction waste.

Used product

Packaging:

Methods of disposal:

The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Can be added to general waste collection after completely emptying. Incineration or landfill should only be considered when recycling is not feasible.

Classification according to European Waste Catalogue (EWC):

20 01 01 - Paper and cardboard

20 01 39 - Plastics

Within the present knowledge of the supplier, packaging is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

SECTION 14: TRANSPORT INFORMATION

This preparation is not classified as dangerous according to international transport regulations (ADR/RID, IMDG or ICAO/IATA).

	ADR/RID	ADN	IMDG	IATA
14.1. UN number	None	None	None	None
14.2. UN proper shipping name	None	None	None	None
14.3. Transport hazard class(es)	None	None	None	None
14.4. Packing group	None	None	None	None
14.5. Environmental hazards	None	None	None	None
14.6. Special precautions for user	None	None	None	None
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.			

SECTION 15: REGULATORY INFORMATION

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

EU Regulation (EC) No. 1907/2006 (REACH):

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling



ARENA FORCE

Waterproofing,
protection
and concrete repair

and packaging of substances and mixtures.

REGULATION (EC) No 648/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on detergents.

ADR - the European Agreement concerning the International Carriage of Dangerous Goods by Road, concluded at Geneva on 30 September 1957, as amended.

RID - the Regulations concerning the International Carriage of Dangerous Goods by Rail, appearing as Appendix C to the Convention concerning International Carriage by Rail (COTIF) concluded at Vilnius on 3 June 1999, as amended.

ADN - the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways concluded at Geneva on 26 May 2000, as amended.

IMDG Code - International Maritime Dangerous Goods Code.

IATA/ICAO: ICAO - International Civil Aviation Organization. IATA - International Air Transport Association.

MARPOL 73/78 - International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978.

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH):

Annex XIV - List of substances subject to authorization: Substances of very high concern: None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles: Not applicable.

15.2. Chemical safety assessment

Chemical Safety Assessment following regulation 1907/2006/EC:

This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms:

Full text of abbreviations

CLP: Classification, Labelling and Packaging Regulation [Regulation (EC) No.1272/2008]

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: International Rule for Transport of Dangerous Substances by Railway

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

CAS: Chemical Abstracts Service

EINECS: European Inventory of Existing Commercial chemical Substances

LC50: Median lethal concentration

LD50: Median lethal dose

REACH: Registration, Evaluation and Authorisation of Chemicals

PBT: Persistent, bio-accumulative and toxic

vPvB: Very persistent, very bio-accumulative

bw: Body Weight.

Full text of classifications and H statements

[CLP/GHS]:

Skin Irrit. 2; Skin corrosion/irritation, Hazard Category 2, H315 Causes skin irritation.

Skin Sens. 1B, Sensitisation — Skin, hazard category 1B; H317 May cause an allergic skin reaction.

Eye Dam. 1, Serious eye damage/eye irritation, Hazard Category 1; H318 Causes serious eye damage.

STOT SE 3; Specific target organ toxicity — Single exposure, Hazard Category 3, Respiratory tract irritation,

H335 May cause respiratory irritation.

Product classification according to Regulation (EC) 1272/2008 (CLP)

Classification for health effects:

Skin Irritation/corrosion (conventional method used):

Cement, portland, chemicals: 40-50%, Skin Irrit. 2; H315

Calcium dihydroxide: 10-15%, Skin Irrit. 2, H315

$15/10+50/10=6,5 >1 \Rightarrow$ **Skin Irrit. 2, H315**



ARENA

F O R C E

Waterproofing,
protection
and concrete repair

Skin sensitisation (conventional method used):

Cement, portland, chemicals: 40-50%, Skin Sens. 1B, H317

Concentration more than 1% => Skin Sens. 1B, H317

Eye Irritation/corrosion (conventional method used):

Cement, portland, chemicals: 40-50%, Eye Dam. 1, H318

Calcium dihydroxide: 10-15%, Eye Dam. 1, H318

$15/3+50/3=21.67 > 1$ => **Eye Dam. 1, H318**

Specific target organ toxicity (conventional method used):

Cement, portland, chemicals: 40-50%, STOT SE 3, H335

Calcium dihydroxide: 10-15%, STOT SE 3, H335

Concentration more than 20% => STOT SE 3, H335

Training advice:

In addition to health, safety and environmental training programs for their workers, companies must ensure that workers read, understand and apply the requirements of this SDS.

DISCLAIMER OF LIABILITY:

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END OF SAFETY DATA SHEET

General Director of LLC "Waterproofing plant" ARENA"



L. A. Nikitina