



Safety Data Sheet

According to Regulation (EC) No 1907/2006

Elaboration date: 01.06.2007
Update date: 16.10.2014

Edition 2

Section 1. IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY

1.1 Product identifier	AVAL KT 55
1.2 Relevant identified uses of the mixture and uses advised against	<p>2 in 1 – adhesive mortar for polystyrene and XPS as well as mesh embedding. Element of the thermal insulation system. Enables execution of reinforcing layer (base coat) and application of polystyrene and XPS boards onto concrete of all classes, aerated concrete, cement plaster, cement – lime plaster as well as non – plastered walls of bricks, blocks, hollow blocks and other similar ceramic or silicate materials.</p> <p><i>Detailed information concerning the use, properties and instruction for use of the mortar are listed in the technical data sheet/product catalogue.</i></p> <p><i>The usage not listed in the ATLAS Sp. z o. o. documents should be previously consulted with a company representative.</i></p>
1.3 Details of the supplier of the Safety Data Sheet	<p style="text-align: center;">ATLAS Sp. z o.o. Św. Teresy 105, 91-222 Łódź, Poland telephone: +48 42 631 89 45 fax: +48 42 631 89 46</p> <p>Person responsible for the Safety Data Sheet: msds@atlas.com.pl</p>
1.4 Emergency telephone number	<p>112 – alarm number for mobiles and land line phones 998 – fire service 997 – police +48 800 168 083 – available Monday – Friday from 8.00 am till 4.00 pm, outside office hours information can be left on the answering machine</p>

Section 2. HAZARDS IDENTIFICATION

2.1 Classification of the mixture	<p>Pictogram: GHS07, GHS05 Signal word: DANGER STOT SE3: H335 <i>May cause respiratory irritation</i> Skin Irrit. 2: H315 <i>Causes skin irritation</i> Eye Dam. 1: H318 <i>Causes serious eye damage.</i> Skin Sens. 1: H317 <i>May cause an allergic skin reaction.</i></p>
2.2 Label elements	<p></p> <p>P102 <i>Keep out of reach of children.</i> P261 <i>Avoid breathing dust.</i> P280 <i>Wear protective gloves/protective clothing/eye protection/face protection.</i> P303+P361+P353 <i>IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.</i> P333+P313 <i>If skin irritation or a rash occurs: Get medical advice/attention.</i> P305+P351+P338 <i>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.</i></p>



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	<p><u>LABEL:</u></p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p style="text-align: center;">DANGER</p> <p>Contains cement. May cause respiratory irritation. Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction.</p> <p>Keep out of reach of children. Avoid breathing dust. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or a rash occurs: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.</p> </div>
2.3 Other hazards	<ul style="list-style-type: none"> According to Annex XIII of REACH Regulation on PBT and vPvB, the mixture does not meet the criteria for PBT and vPvB. Due to its form – dust, the product may mechanically irritate eyes and respiratory system.

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances	Not applicable.				
3.2 Mixtures	Mixture of Portland cement, quartz sand, lime aggregate, methylcellulose, powdered resins and additives.				
3.2.1a Dangerous components	name	no	content [%]	classification	labelling (see point 16)
	Portland clinker	CAS: 65997-15-1 EC No: 266-043-4 Registration: 02-2119682167-24-xxxx	> 10%	GHS07 GHS05 Danger	H335, H315, H318, H317
3.2.1b Substances causing hazard in the workplace	Crystalline silicon dioxide [14808-60-7] Calcium carbonate [471-34-1]				
Other information	<ul style="list-style-type: none"> For the classification of the product the actual content of hazardous ingredients was used. Shelf life period in conditions as listed in Section 7 is 12 months from the manufacturing date shown on the packaging. Content of soluble chromium (VI) in ready – to – use mix < 0.0002%. 				

Section 4. FIRST AID MEASURES

4.1 Description of first aid measures	<p>After inhalation: Move injured person to fresh air and observe, get medical assistance if needed.</p> <p>After skin contact: Remove contaminated clothing and rinse the skin thoroughly with water.</p> <p>After contact with eyes: Do not rub eyes. Rinse immediately with plenty of water within min. 15 minutes, keep the eyes wide open during rinsing. Remove any contact lenses. Contact an eye specialist.</p> <p>After ingestion: Do not induce vomiting. Do not give anything to drink to unconscious or semiconscious person, if person is conscious, wash out mouth with water. Get immediate medical attention.</p>
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4.2 Most important symptoms and effects, both acute and delayed	Action of products of alkaline reaction onto living tissues, in contrast to acids, is always delayed, that is why one should not allow long term and direct contact of dry or ready – to – use mixtures with skin, eyes or respiratory system. Follow remarks concerning safety and use shown on the label. Immediately remove product from skin, eyes and mucosae, which allows to prevent any delayed exposure effects.
4.3 Indication of any immediate medical attention and special treatment needed	In case of any symptoms of concern get medical assistance immediately, show safety data sheet, packaging or label. Do not let the mortar harden, rinse/wash immediately. In case of contact with eyes or mucosae medical consultation is recommended. Due to product irritant properties access to running water is recommended. Use protective creams in case of repeated or long term contact with skin.

Section 5. FIREFIGHTING MEASURES

Each employee should ask information concerning fire hazard at his worksite and closest environment. Worksite should be kept in due order. Flammable products must not be kept close to electrical devices, heaters and other sources of fire. In case of fire one should immediately, by all means, alarm people in the risk zone and call fire service (see: section 1.4) giving information essential for firefighting commencement (give the event site – full address, what is burning or what type of threat occurs, is there threat for human life, telephone number from which one is alarming as well as name and surname).
Next, using local extinguishing media, start firefighting and help people at risk, if necessary, start evacuation of people and property. These actions should be executed so that there is no start of panic, which can seize people at risk caused by fire and smoke. Panic can lead to unwanted and taking their toll accidents during rescue and firefighting actions. That is why when carrying any actions in case of fire one should give careful consideration when taking a decision. Until fire service comes the action is led by a particularly appointed person. Remember to protect the airway from smoke by using damp cloths and to move in bottom parts of rooms of high smoke level.

5.1 Extinguishing media	Suitable extinguishing media: All types of extinguishing media Unsuitable extinguishing media: No
5.2 Special hazards arising from the mixture	No special hazards arising from the product properties, combustion products or gases formed.
5.3 Advice for firefighters	In each action firefighter, through contact with hazardous substances and element, is subject to injuries. That is why professional protective equipment is necessary. The basic equipment is a helmet protecting firefighter's head, made of proper fibers and characterized with high strength. Eyes and face should be protected with a face shield made of polycarbonate. Nape should be protected with a special piece of cloth. In certain circumstances firefighter can wear noncombustible balaclava protecting against high temperature. Proper specialist clothing made of material protecting against fire, mechanical damage and waterproof. In case of great dustiness/smoke level firefighter should be equipped with breathing apparatus, hindering dust and smoke penetration into the airway.

Section 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures	Avoid situations which may lead to emergency. Follow regulations and rules concerning occupational health and safety, as well as fire regulations, work regulations and order set at worksite, care for equipment, do not use equipment out of order. For material handling adhere to section 7, for individual protection measures adhere to section 8. For persons not belonging to staff applying aid: One should estimate situation, make sure if there is no further danger to any people nearby (victims, ones applying aid, etc.), if needed, secure the incident site and call for help. In case of lack of danger to human life and health, one should commence actions leading to limitation of product penetration to environment and commence cleaning works. For persons applying help:
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	<p>One should check if a victim responds to stimulus. If the victim is unconscious, immediately open the airway by gently tilting the head back and gently lifting the chin forward. Check if the person breaths (feel for the person's breath on your cheek).</p> <ul style="list-style-type: none"> - If the victim breaths normally place the person in the recovery position and check one's breath regularly. - If the victim does not breath start the cardiopulmonary resuscitation (CPR): Place the heel of one hand over the center of the person's chest, between the nipples. Place your other hand on top of the first hand. Keep your elbows straight, and push straight down on (compress) the chest at least 2 inches (approximately 5 centimeters). Push hard at a rate of about 100 compressions a minute. After 30 chest compressions, open the person's airway and give two rescue breaths (pinch the nostrils, open the mouth keeping the chin lifted and, after taking deep breath, tightly sealing victim's mouth, blow air into lungs). If the victim's chest does not rise one should examine the mouth to make sure no foreign material occluding the airway is inside, remove it immediately, and check if the head is tilted enough and chin lifted. Continue chest compressions and rescue breaths in ratio 30:2 until emergency personnel take over or the victim starts breathing by oneself. <p>If at incident site there is none available to give rescue breaths, then provide chest compressions only. In case of choking one should encourage the victim to cough, and in case of serious choking bend the victim forward and give up to 5 blows between the shoulder blades with the heel of your hand.</p>
6.2 Environmental precautions	Counter release of greater volume of material into environment (sewage system, ground or surface water and soil) by using self – contained sewage systems, allow to gather, in case of breaching, without possibility of its passing into environment (backup sewage system, self – contained), use of backup reservoirs or backup packaging.
6.3 Methods and material for containment and cleaning up	Dust or sweep surfaces avoiding dust release. Dispose of vast waste amounts according to provisions in force. Product solid after contact with dampness can be treated as construction debris.
6.4 Reference to other sections	Individual protection measures: section 8 Waste treatment: section 13

Section 7. HANDLING AND STORAGE

7.1 Precautions for safe handling	Avoid dust release when handling. Do not eat and drink, do not smoke. When working with cement products, avoid wearing watches and rings, as well as other items fitting closely to skin which may cause mortar accumulation underneath. In case of injury stop working with product and dress the wound.
7.2 Conditions for safe storage, including any incompatibilities	Keep in sealed original and labelled packages in dry rooms, most preferably on pallets, do not expose to direct sunshine; keep in dry, cool and well ventilated room, away from incompatible materials (see section 10), beverages and food. Protect against dampness – product gets irreversibly solid in contact with dampness.
7.3 Specific end uses	Use in accordance to occupational health and safety regulations. Provide proper ventilation, especially in closed rooms. Avoid contact with skin and eyes. Detailed information concerning the use, properties and instruction for use of the mortar are listed in the technical data sheet/product catalogue. The usage not listed in the ATLAS Sp. z o. o. documents should be previously consulted with a company representative.

Section 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Control parameters	In case of occurrence in the mixture of ingredients listed in section 3.2.1 according to Minister of Labour and Social Policy Regulation of 29 November 2002 concerning maximum allowable concentration and intensity of health harmful factors at workplace (Dz.U.2002 no 217 pos.1833) with further changes, monitoring at workplace is obligatory.
• TLV and STEL	Portland cement and slug cement dust [65997-15-1]:



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	- total dust TLV – 6 mg/m ³ - respirable dust TLV – 2 mg/m ³ Dust containing free (crystalline) silica above 50% [14808-60-7]: - total dust TLV – 2 mg/m ³ - respirable dust TLV – 0.3 mg/m ³ Calcium carbonate: - total dust TLV – 10 mg/m ³
• MABC	Not applicable
• monitoring	Minister of Health Regulation of 2 February 2011 on testing and measurement of health harmful factors at workplace (Dz.U. 2011 No 33 pos. 166).
8.2 Exposure controls	
8.2.1 Appropriate engineering controls	Provide proper room ventilation during work with mixture and individual protection measures. Provide access to running water and do not allow to wash hands with water from a bucket used for tools washing.
8.2.2 Individual protection measures	
• respiratory protection	Disposable dust half mask, or mask with P2 particle filter (in case of work in atmosphere with dust content).
• hand protection	Protective textile gloves – during the packed product handling, gloves made of rubber or other impermeable material (breakthrough time above 480 min. according to PN-EN 375 standard) – in work with product after water adding. Use protective creams for hands.
• eye/face protection	Goggles with side shields in case of carrying works which may cause hazard for eyes (mixing, pouring). In case of high dustiness full coverage, tight - fitting face goggles.
• skin protection	Working clothes with long sleeves and legs with proper protection preventing the material from getting underneath. Waterproof, long working footwear.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties	Appearance: grey powder Odour: no Odour threshold: not applicable pH: 8-11* for mixture with water Melting point / freezing point: > 1000 °C Initial boiling point and boiling range: not applicable Flash point: not applicable Evaporation rate: not applicable Flammability: not applicable Upper / lower flammability or explosive limits: not applicable Vapour pressure: not applicable Vapour density: not applicable Relative density: approx. 1.5 g/cm ³ Solubility: insoluble Partition coefficient: n – octanol/water: not applicable Auto – ignitron temperature: not applicable Decomposition temperature: not applicable Viscosity: not applicable Explosive properties: no Oxidising properties: no
9.2 Other information	* - ready – to – use mixture is a thick paste for which setting of precise pH value is not possible

Section 10. STABILITY AND REACTIVITY

10.1 Reactivity	Not applicable
10.2 Chemical stability	Properly stored cement products (section 7) are stable and can be stored with most of other construction materials. Product mixed with water becomes solid forming a stable structure which does not react with environment in standard conditions.
10.3 Possibility of hazardous reactions	Adding of powdered aluminium into wet cement mortar may cause hydrogen secretion.
10.4 Conditions to avoid	Avoid damp – mixture gets solid.



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10.5 Incompatible materials	Powdered aluminium.
10.6 Hazardous decomposition products	None known for storage and use according to regulations.

Section 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects	Cement - based products are highly hygroscopic and absorb water from any material on which they are placed, that is why remove any skin contamination immediately (do not let the product harden on skin) in order to avoid skin drying or burns.
Routes of entry:	
• respiratory	Risk of contact with cement dust can lead in the short time to irritation of airway at nose and throat site and cause cough. Frequent inhaling the dust over a long period of time increases the risk of lung diseases development.
• digestive	Irritation of mouth, throat and stomach may occur.
• skin	Product contains cement which can cause dermatitis accompanied by itching, swelling, skin gets reddened, scaly and cracked. Dermatitis can happen in two ways: - by reaction to irritation (caused by physical properties of cement, which causes mechanical contact skin irritation). Fine cement particulates, often mixed with sand and other aggregate during cement mortars manufacturing, can chafe skin and cause irritation leading to dermatitis. With proper treatment irritation skin dermatitis usually vanishes. If contact lasts a long time, then complaints intensify and skin gets more subject to allergic skin dermatitis. - by allergic reaction (caused by allergy to hexavalent chromium, contained in cement). The process of allergic skin dermatitis differs from the irritation process. Sensitizers penetrate the skin protective barrier and cause allergic reaction. The most common factor causing human allergic dermatitis is chromate (VI) (see section 3). Burns are caused by wet cement alkalinity. In case of prolonged contact of wet cement with skin, e.g. when kneeling on it or when cement gets to footwear or gloves, sudden burns or ulcers may form.
• eyes	Dust, mixture and mixture mixed with water irritate eyes.

Section 12. ECOLOGICAL INFORMATION

12.1 Toxicity	Ecotoxicological effects are possible only after spreading large amounts of product, particularly after contact with water a rise in pH can happen.
12.2 Persistence and degradability	Is not biodegradable, natural mineral compounds comprise most of mixture ingredients.
12.3 Bioaccumulative potential	Bioaccumulation coefficient for natural mineral compounds has not been set
12.4 Mobility in soil	Non – mobile.
12.5 Results of PBT and vPvB assessment	Not applicable
12.6 Other adverse effects	Not applicable

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods	
Waste safe treatment:	Solid waste and hardened product can be treated as construction debris. Collection to landfill sites after agreement with proper authorities. Waste holder is obliged by law to recycle it first. If, due to technological reasons, recycling is not possible or is not justified because of ecological or economical reasons, such waste should be disposed according to environment protection requirements and waste disposal plans. Follow rules of Waste Act of 14 December 2012 (Dz.U. 2013 no 0 pos. 21) with further changes.
Packaging waste treatment:	Follow rules of Act on packaging and packaging waste of 13 June 2013 (Dz.U.2013 no.0 pos.888). Packaging soiled with product should be treated as product.
Waste code:	product: 10 13 82 (<i>Waste from production of mineral binders – Rejections</i>) packaging: 15 01 05 (<i>Packaging waste – Multi – material packaging</i>)



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Section 14. TRANSPORT INFORMATION

14.1 UN number	Not applicable
14.2 UN proper shipping name	Not applicable
14.3 Transport hazard classes	Product transported in original packaging does not cause hazard in transport. Does not require special treatment and labelling according to current transport regulations.
14.4 Packing group	Not applicable
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	Follow rules of Act of 1 July 2005 on amendment of act on carriage of dangerous goods by road and on amendment of some other acts (Dz.U. 2005 No 141 pos. 1184) with further changes.
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable

Section 15. REGULATORY INFORMATION

15.1 Safety, health and environment regulations/ legislation specific for the mixture	
<ul style="list-style-type: none">• Legal acts on the classification and labelling of packaging of substances and mixtures classification	Phrases indicating hazard type and qualifying conditions of safe use of hazardous mixture according to Regulation (EC) of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (see: <i>Section 2.1 and 2.2</i>).
<ul style="list-style-type: none">• Other legal acts	<ul style="list-style-type: none">- Act on chemical substances and their mixtures of 25 February 2011 (Dz.U.2011 no.63 pos.322)- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC with further changes- Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)- Minister of Health Regulation of 30 December 2004 on occupational health and safety related to occurrence of chemical factors at workplace (Dz.U.2005 No 11 pos. 86) with further changes- Minister of Economy Regulation of 21 December 2005 on fundamental requirements for individual protection measures (Dz.U.2005 No 259 pos. 2173)- Government Declaration of 24 September 2002 on coming into effect of amendments to Appendix A and B to European Agreement concerning International Carriage of Dangerous Goods by Road (ADR), concluded in Geneva on 30 September 1957 (Dz.U.2002 No 194 pos.1629) with further changes- Act of 20 April 2004 on amendment and repealing of some acts in relation to gaining the European Union membership by the Republic of Poland (Dz.U.2004 No 96 pos. 959)- Minister of Economy, Labour and Social Policy Regulation of 26 September 1997 on general occupational health and safety rules (Dz.U.1997 No 129 pos. 844) with further changes- Minister of the Environment Regulation of 27 September 2001 on waste catalogue (Dz.U.2001 No 112 pos.1206)
15.2 Chemical safety assessment	Does not apply to mixtures.

Section 16. OTHER INFORMATION



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List of H - phrases	H335 - May cause respiratory irritation H315 - Causes skin irritation H318 - Causes serious eye damage H317 - May cause an allergic skin reaction
List of abbreviations and acronyms	CAS No – Chemical Abstract Service number PBT – Persistent, Bioaccumulative, and Toxic vPvB – very Persistent very Bioaccumulative EC No – number assigned to a chemical substance in the European Inventory of Existing Chemical Substances, or number assigned to a substance in the European List of Notified Chemical Substances, or number in the list of chemical substances provided in the "No-longer polymers" publication. REACH regulation – Regulation concerning the Registration, Evaluation, Authorization and Restriction of Chemicals. CMR substance/mixture – carcinogenic, mutagenic or toxic for reproduction substance/mixture. ADR – international agreement concerning the carriage of dangerous goods by road TLV – Threshold Limit Value STEL – Short – term Exposure Limit. GHS – Globally Harmonized System of Classification and Labelling of Chemicals CLP – Regulation aligning the GHS system MABC – Maximum Allowable Biological Concentration GHS07, GHS05 – pictograms GHS according to appendix V to CLP STOT SE3 – Specific target organ toxicity (single exposure) (Category 3) Skin Irrit. 2 – Skin irritation (Category 2) Eye Dam. 1 – Serious eye damage (Category 1) Skin Sens. 1 – Sensitization of the skin (Category 1)
Training advice	Not applicable
Limitations of use	Not applicable
Other	<ul style="list-style-type: none">• Mixture reported to Chemical Substances Supervisor.• When working with material one should mind dangers such as sprains, especially of back, arms and shoulders as a result of lifting and handling of bags with mortar, mortar mixtures, etc. Over the long term, frequent lifting of heavy items by workpeople can result in serious spine injuries.• Phrase EUH208 – Contains cement. May produce an allergic reaction, according to art. 27 of CLP regulation and point 2.8 of the appendix II to CLP listed in the classification in the form of phrase H317, so its text does not have to be copied on the packaging.• Safety Data Sheet elaborated in ATLAS Sp. z o.o.• According to definition of the Regulation (EC) No. 1907/2006 of the European Parliament and of the Council, product is a mixture and is not subject to registration in REACH system.• According to Regulation (EC) No. 1272/2008 of the European Parliament and the Council, after 01 June 2015 mixtures are classified, labelled and packed according to CLP Regulation listed above.• According to Regulation (EC) No. 1272/2008 of the European Parliament and the Council, mixtures placed on the market before 01 June 2015 and holding old classification, stay on the market until 01 June 2017 with appropriate safety data sheet.
Key literature basing on which this safety data sheet has been prepared	The information on this data sheet reflects the currently available knowledge and has been gathered with regard to safety requirements, simultaneously not guaranteeing product properties. The data sheet does not release the user from applying the legislation, administrative and product rules, occupational health and safety rules. In elaboration of the data sheet the Center for Construction Research and Training and ECA (European Cement Association - Cembureau) library was used.
Indication of changes in case of an update	Changes in the safety data sheet in relation to the previous edition marked in the text with this mark: 



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