

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 12.12.2018

Revision: 12.12.2018

SECTION 1: Identification of the substance/mixture and of the company/undertaking

· **1.1 Product identifier**

· **Trade name:** AKRINOL Flex

· **Article number:** 2.000.038

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

For end use, cement and mixtures containing cement are used for preparation of construction materials and elements both for industrial /professional users (construction experts) as well as for private end users. Cement and mixtures containing cement are mixed with water, homogenized and transformed into desired construction material and construction element. Such remodelling procedures require adequate handling of dry (powder) material as well as the one mixed with water (cement paste, mortar or concrete).

· **Life cycle stages**

PW Widespread use by professional workers

C Consumer use

· **Sector of Use**

SU21 Consumer uses: Private households / general public / consumers

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

SU19 Building and construction work

· **Product category** PC1 Adhesives, sealants

· **Process category** PROC19 Manual activities involving hand contact

· **Environmental release category** ERC10a Widespread use of articles with low release (outdoor)

· **Article category** AC4 Stone, plaster, cement, glass and ceramic articles

· **Application of the substance / the mixture** Tile adhesive

· **1.3 Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

JUB d.o.o.

Dol pri Ljubljani 28

1262 DOL PRI LJUBLJANI

SLOVENIA

T: + 386 1 5884 183

F: + 386 1 5884 250

E: info@jub.si

· **Further information obtainable from:**

Laura Učakar

T: +386 1 5884 185

F: +386 1 5884 227

E: laura.ucakar@jub.eu

· **1.4 Emergency telephone number:**

UK Emergency number: 999

Emergency Action: In the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and emergency department.

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.

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GHS07

Skin Irrit. 2 H315 Causes skin irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.
STOT SE 3 H335 May cause respiratory irritation.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



GHS05 GHS07

· **Signal word** *Danger*

· **Hazard-determining components of labelling:**

Cement, portland, chemicals

· **Hazard statements**

H315 Causes skin irritation.
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.

· **Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P321 Specific treatment (see on this label).
P362+P364 Take off contaminated clothing and wash it before reuse.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Hazard description:**

Contact of skin with wet cement, fresh concrete or mortar can cause irritation, dermatitis and burns. It can cause damage on products made of aluminium and other non-precious metals.

· **Information concerning particular hazards for human and environment:**

Cement doesn't meet the criteria for PBT or vPvB in line with the Attachment XIII of REACH (Regulation 1907/2006/ES).

Cement dust can cause the irritation of respiratory organs.

When cement reacts with water, for instance during preparation of concrete or mortar, or when cement gets humid, a highly alkaline solution is created. Due to high alkalinity, wet cement can cause irritation of skin and eyes.

Also, it can cause allergic reaction of individuals due to content of soluble Cr (VI). When necessary, an agent for reducing the content of hexavalent chromium (chromium VI) below the level of 0.0002 % is added to cement.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment** *Not applicable.*

· **PBT:** *Not applicable.*

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· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **Description:** Mixture of substances listed below with nonhazardous additions.· **Dangerous components:**

CAS: 65997-15-1 EINECS: 266-043-4	Cement, portland, chemicals ----- ☠ Eye Dam. 1, H318 ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	>25- ≤50%
CAS: 7488-55-3 EINECS: 231-302-2	tin sulfate ----- ☠ STOT RE 2, H373 ☠ Eye Dam. 1, H318 ⚠ Acute Tox. 4, H332; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335 Aquatic Chronic 3, H412	>0- ≤0.005%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· **4.1 Description of first aid measures**· **After inhalation:**

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.· **After swallowing:** If symptoms persist consult doctor.· **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.· **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Firefighting measures

· **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.· **5.2 Special hazards arising from the substance or mixture** No further relevant information available.· **5.3 Advice for firefighters**· **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective clothing.· **6.2 Environmental precautions:**

Do not wash out cement into the sewage or drainage system nor in water bodies (e.g. water courses).

If possible, collect the scattered material in dry condition.

Dry cement

Use dry methods, such as vacuum cleaning or vacuum hoovering (industrial portable devices equipped with filters with high efficiency of air cleaning (EPA and HEPA filters, EN 1822-1) or equivalent techniques) which do not cause dusting. Never use compressed air for cleaning.

The other option is dust removal, wet sweeping or by using water spray or jet (fine haze to avoid dusting in the air) and removal of mud.

If this is not possible, remove mud with water (wet cement).

When wet or vacuum cleaning is not possible and only dry cleaning with brushes is possible, it must be ensured that workers wear adequate personal protective equipment and that spreading of dust is prevented.

Avoid inhalation of cement and contact with skin. Scattered material should be kept in a container. Later use is allowed. Prior to removal, solidification should be performed as described in CHAPTER 13.

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Wet cement

Clean wet cement and store it in a container. Let the material dry and harden prior to removal, as described in CHAPTER 13.

In case of gas release or seepage into the ground inform responsible authorities.

Do not allow to enter sewers/ surface or ground water.

- **6.3 Methods and material for containment and cleaning up:** Ensure adequate ventilation.

- **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:** No special measures required.

- **7.2 Conditions for safe storage, including any incompatibilities**

- **Storage:**

- **Requirements to be met by storerooms and receptacles:** Prevent any seepage into the ground.

- **Information about storage in one common storage facility:**

Do not store together with reducing agents, heavy-metal compounds, acids and alkalis.

- **Further information about storage conditions:**

Keep container tightly sealed.

Control of water-soluble chromium VI content:

In case of cements to which a reducing agent for reducing soluble chromium (VI) is added in line with the regulations, the effectiveness of a reducing agent decreases with time. Cement bags and/or delivery documents contain data on packaging date, storage conditions and storage time (shelf life) in order to preserve the effectiveness of a reducing agent and consequently the content of soluble chromium VI below 0.0002 % of the total weight of ready-to-use dry cement in line with the EN 196-10 standard.

In case of inadequate storage (entry of humidity) or in case of changing storage area, the effectiveness of contained reducing agent can decrease early. For this reason, hypersensitivity in case of contact with skin cannot be excluded.

- **7.3 Specific end use(s)**

Packaged products should be stored in closed bags, lifted from the floor, in a cold and dry space protected from excessive draught in order to prevent quality deterioration. Bags must be placed so that they are stable. Do not use aluminium containers for storage or transportation of wet cement compound due to incompatibility of materials.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

- **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

CAS: 65997-15-1 Cement, portland, chemicals

WEL	Long-term value: 10* 4** mg/m ³ *inhalable dust **respirable dust
-----	---------------------------------------------------------------------------------

CAS: 7488-55-3 tin sulfate

WEL	Short-term value: 4 mg/m ³ Long-term value: 2 mg/m ³ as Sn
-----	----------------------------------------------------------------------------------------

- **Additional information:** The lists valid during the making were used as basis.

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· **8.2 Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Suitable respiratory protective device recommended.

Technical-technological control

Exposure – for 1 mg/m³: Duration is not limited (up to 480 minutes per shift, 5 shifts per week)

USE/PROC* - Technical ventilation device & effectiveness

Industrial manufacturing / production of hydraulic binders and construction materials

2,3 *Not necessary*

14,26 *Not necessary or local device, 78 %*

5,8b,9 *Local device, 78%*

Industrial uses of dry hydraulic binders and construction materials (inside, outside)

2,3 *Not necessary*

14,22,26 *Not necessary or local device, 78 %*

5,8b,9 *Local device, 78%*

Industrial uses of wet suspensions of hydraulic binders and construction materials

7 *Not necessary or local device, 78*

2,5,8b,9,10,13,14 *Not necessary*

Industrial uses of wet suspensions of hydraulic binders and construction materials (inside , outside)

2 *Not necessary or general ventilation, 29%*

9,26 *Not necessary or local ventilation unit, 77%*

5,8a,8b,14 *Not necessary or local ventilation unit, 72%*

19 *Ventilation device isn't adequate, use only in well ventilated areas and outside*

Professional uses of wet suspensions of hydraulic binders and construction materials

11 *Not necessary or local ventilation unit, 77%*

2,5,8a,8b,9,10,13,14,19 *Not necessary*

* PROC are identified uses and procedures described in Point 15.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:** Tightly sealed goggles

- **Risk management measures**

- Protective gloves that meet the criteria of BS EN 374.

- Protective goggles must comply with standard BS EN 166.

- Protective mask respirator for fine dust particles and vapors should be in accordance with BS EN 149 (dust particle filters)

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form: Powder

Colour: Grey

- **Odour:** Mild

- **Odour threshold:** Not determined.

- **pH-value:** Not applicable.

- **Change in condition**

Melting point/freezing point: Undetermined.

Initial boiling point and boiling range: 100 °C

- **Flash point:** Not applicable.

- **Flammability (solid, gas):** Not determined.
Not applicable.

- **Decomposition temperature:** Not determined.

- **Auto-ignition temperature:** Product is not selfigniting.

- **Explosive properties:** Product does not present an explosion hazard.

- **Explosion limits:**

Lower: Not determined.

Upper: Not determined.

- **Vapour pressure:** Not applicable.

- **Density:** Not determined.

- **Relative density** Not determined.

- **Vapour density** Not applicable.

- **Evaporation rate** Not applicable.

- **Partition coefficient: n-octanol/water:** Not determined.

- **Viscosity:**

Dynamic: Not applicable.

Kinematic: Not applicable.

- **Solvent content:** 0.0 g/l

- **VOC (EC)** 0.00 %

- **Solids content:** 59 %

- **9.2 Other information** No further relevant information available.

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SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:		
CAS: 7488-55-3 tin sulfate		
Oral	LD50	2,207 mg/kg (rat)

- **Primary irritant effect:**

- **Skin corrosion/irritation**

Causes skin irritation.

- **Serious eye damage/irritation**

Causes serious eye damage.

- **Respiratory or skin sensitisation**

May cause an allergic skin reaction.

- **Additional toxicological information:**

Data on toxicological effects:

Hazard class/ Category - Effect

Acute toxicity - dermal

Limit test, rabbit, 24-hour exposure, 2.000 mg/kg of body weight – no mortality.

Based on available data, the criteria for classification are not fulfilled.

Acute toxicity - inhalation

Acute toxicity in case of inhalation is not detected.

Based on available data, the criteria for classification are not fulfilled.

Acute toxicity - oral

Based on studies of dust from cement oven, there are no signs of oral toxicity.

Based on available data, the criteria for classification are not fulfilled.

Skin corrosion/ skin irritation Cat.2

Cement in contact with wet skin can cause swelling, cracks and fissures on skin. Longer contact combined with abrasion can cause severe burns.

Severe eye injuries/irritation Cat.1

Portland cement clinker causes opaque picture due to effects on cornea; calculated irritation index was 128.

Common cement contains different quantities of Portland cement clinker, electro filter ash, blast furnace, gypsum, natural porcelains, slate, microsilica and limestone.

Direct contact of cement with cornea can cause injuries of cornea due to mechanical load, immediate or delayed irritation or inflammation. Direct contact with larger quantities of cement dust or gush of wet cement can cause effects ranging from moderate eye irritation (e.g. inflammation of eye conjunctiva or blepharitis) to chemical burns and blindness.

Skin sensitisation Cat.1B

In some individuals, skin eczema can appear after the exposure to wet cement dust, due to its high pH value which causes contact dermatitis after longer contact, either due to immune reaction to soluble chromium (VI) which causes allergic contact dermatitis.

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The reaction can appear in different forms, from mild rash to severe dermatitis and is a combination of both aforementioned mechanisms.

If cement contains a reducing agent for soluble Cr(VI), the effectiveness of reduction of chromium is not decreased during the period while a reducing agent's expiration date is not exceeded.

Skin sensitisation effect should not be expected during that period.

-
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
 - **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
 - **Carcinogenicity** Based on available data, the classification criteria are not met.
 - **Reproductive toxicity** Based on available data, the classification criteria are not met.
 - **STOT-single exposure**
STOT single exposure Cat.3
Cement dust can irritate throat and respiratory tract. Coughing, sneezing and trouble breathing can occur after exposures exceeding exposure limits for professional exposure.
In general, evidence clearly indicate that professional exposure to cement dust causes the decrease of respiratory function. However, the evidence currently available is not sufficient to confirm the connection between the dosage and reaction to such effects.
May cause respiratory irritation.
 - **STOT-repeated exposure**
STOT repeated exposure
There exists indication for COPD (chronic obstructive pneumonia disease). The effects are acute due to high exposure. Chronic effects or effects in case of low concentration cannot be observed. Based on available data, the criteria for classification are not fulfilled.
 - **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

Cement is not dangerous for the environment. Ecotoxicological research with Portland cement on water flea - *Daphnia magna* and *Selenastrum coli* showed only a minor toxicological effect. For this reason, the values of LC50 and EC50 could not be determined. No toxic effects on sediments were identified. However, the discharge of a large quantity of cement into water courses can cause an increase of pH, which can in some cases be toxic for water organisms.

CAS: 7488-55-3 tin sulfate

EC50/ 72 h 0.2 mg/l (l)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Other information:**

Control of environment exposure:

To prevent the emission of compound dust into the environment, see the measures of the technical-technological control (sub-chapter 8.2.1). Use all adequate measures to prevent the loss of compound into water (sewage system, groundwater and surface water). At facilities where handling with cement takes place or where cement is transported, loaded, unloaded and stored, one must take care of adequate technical-technological measures for limiting the emissions of dust into the working environment. By using preventive measures, it must in particular be ensured that the concentration of respirable cement dust is below allowed threshold (limit) values determined for Portland cement.

Control of environment exposure for emissions of cement particles into the air must be in line with the available technology and valid regulations regarding the emissions of dust particles in general. Control of environment exposure is also important for the aquatic environment, since cement emissions in different life phases (manufacturing and use) refer in particular to soil and waste water. The effect on aquatic environment and the assessment of exposure include the effect of potential pH values changes due to release of hydroxide to organisms/ecosystems. The toxicity of other dissolved non-organic ions is negligible as compared to potential pH value effect. All other effects which could occur during manufacturing and use should be only of local nature. The pH of waste and surface waters should not exceed the value of Ph=9, as otherwise it could

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affect municipal and industrial effluent treatment plants. In order to prepare the assessment of exposure, it is recommended to use a phased approach:

Phase 1: Obtain data on the pH value of waste waters and on the impact of cement on their pH value. If the pH value exceeds 9 and it can be attributable to a large extent to the content of cement, further research is necessary in order to prove safe use.

Phase 2: Obtain data on the pH value of accepting water, collected after the flowing out point. The pH of accepting water should not exceed the value pH=9.

Phase 3: Measure the pH value in accepting water, collected after the flowing out point. If the pH value is lower than 9, the substance is proved to be safe for use. However, if the pH value is higher than 9, adequate measures must be prepared in order to manage risks: One must take care of neutralization of waste waters and in such way ensure safe use of cement, both in the production as well as in the use phase.

Regarding the exposure of land environment, no measures for the emission control are necessary.

· **Additional ecological information:**

· **General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· **12.5 Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**

The removal of cement must be carried out in line with the legislative provisions:

1.- Product – cement with expired shelf life:

If it contains more than 0.0002 % of soluble Cr (VI), it is not used / sold, except in controlled closed or entirely automated processes. It should be recycled or removed in line with the aforementioned regulations or reducing agent is added to it again.

2.- Product – unused remains or bulk:

Collect unused remains or bulk/scattered material as it is. Label the containers. If possible, use it again (shelf life and exposure to dust are important). In case of removal, harden it with water and remove it in line with the "Product – after addition of water, hardened"

3.- Product – mud

Let it harden, prevent entry into the sewage and drainage systems or into water bodies (e.g. water courses) and remove as waste concrete.

4.- Product – after addition of water, hardened

Prevent entry into the sewage system. Remove hardened material as waste concrete. The waste is not hazardous, but rather an inert one. Waste classification number: 10 13 14 (Wastes from manufacture of cement products – Waste concrete and concrete sludge) or 1701 01 (Construction and demolition waste – Concrete).

Packaging waste

Packaging waste must be completely emptied and disposed of in accordance with the Decree on packaging and packaging waste handling, classification number: 15 01 05 - Composite packaging.

· **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Hand over to hazardous waste disposers.

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· **European waste catalogue**

08 02 01 waste coating powders

15 01 05 composite packaging

· **Uncleaned packaging:**· **Recommendation:** Dispose of packaging according to regulations on the disposal of packagings.**SECTION 14: Transport information**· **14.1 UN-Number**· **ADR, ADN, IMDG, IATA** Void· **14.2 UN proper shipping name**· **ADR, ADN, IMDG, IATA** Void· **14.3 Transport hazard class(es)**· **ADR, ADN, IMDG, IATA**· **Class** Void· **14.4 Packing group**· **ADR, IMDG, IATA** Void· **14.5 Environmental hazards:** Not applicable.· **14.6 Special precautions for user** Not applicable.· **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** Not applicable.· **UN "Model Regulation":** Void**SECTION 15: Regulatory information**· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Following regulation was considered in the preparation of document:

Legislation on the occupational health and safety, the chemical legislation and regulations on biocidal products, regulations on classification, packaging and labeling of chemical and biocidal products and requirements on safety data sheets for chemicals and biocidal products composition, as well as regulations on the management of packaging and packaging waste and waste.

· **Directive 2012/18/EU**· **Named dangerous substances - ANNEX I** None of the ingredients is listed.· **National regulations:**

In line with point 47 of Appendix XVII to the Regulation ES 1907/2006, a prohibition of use and placing on the market applies for cement and cement preparations:

1. Cement and cement-containing mixtures shall not be used or placed on the market, if they contain, when hydrated, more than 0.0002 % soluble chromium (VI) of the total dry weight of the cement.

2. If reducing agents are used, then without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that the packaging of cement or cement-containing mixtures is visibly, legibly and indelibly marked with information on the packing date, as well as on the storage conditions and the storage period appropriate to maintaining the activity of the reducing agent and to keeping the content of soluble chromium (VI) below the limit indicated in the previous paragraph.

3. By way of derogation, paragraphs 1 and 2 shall not apply to the placing on the market for, and use in, controlled closed and totally automated processes in which cement and cement-containing mixtures are handled solely by machines and in which there is no possibility of contact with the skin.

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· Other regulations, limitations and prohibitive regulations*Processes where cement products are used:*

The table provides an overview of all adequate identified uses of cement and cement-based hydraulic binders. All uses have been grouped in these identified uses due to specific conditions of exposures to human health and environment. For each specific use, a series of measures is prescribed for risk management or local control (see Chapter 8), which should be respected by the user of cement or cement-based hydraulic binders in order to reduce exposure to an acceptable level.

PROC - Identified use – description of use

2.- Use in closed, continued processes with periodic controlled exposure, e.g. Industrial or professional manufacturing of hydraulic binders

3.- Use in closed batch processes e.g. industrial or professional production of concrete

5.- Mixing or homogenization in batch processes for manufacturing compounds and products, e.g. industrial or professional manufacturing of concrete prefabricated items

7.- Industrial splashing e.g. industrial use of wet suspensions of hydraulic binders with splashing

8a.- Transfer of substance or mixture (filling / emptying) from / into vessel / large container on general-purpose devices e.g. use of cement in bags for reparation of mortar

8b.- Transfer of substance or mixture (filling / emptying) from / into vessel / large container on special-purpose devices, e.g. filling up of silos, trucks and cisterns in a cement production plant

9.- Transfer of substance or mixture into small containers, e.g. filling up of cement into bags in a cement production plant - line

10.- Application by roller or painting, e.g. of products intended for improving contact between the substrate and finishing product

11.- Non-industrial splashing e.g. professional use of wet suspensions of hydraulic binders with splashing

13.- Treatment of products with soaking and infusing, e.g. protection of construction products, with a coating for improving product's effectiveness

14.- Manufacturing of compounds or products with tableting, compression, extrusion, peletting e.g. manufacturing of floor linings

19.- Manual mixing with close contact and only with personal protective equipment, e.g. mixing of wet hydraulic binder at construction site

22.- Potentially closed treatment of minerals / metals at increased temperature in industrial area, e.g. manufacturing of bricks

26.- Use of solid inorganic substances at room temperature e.g. mixing of wet hydraulic binders

In cement-based preparations, the content of chromium - Cr(6+) is reduced in line with the provisions on classification, packaging and labelling of hazardous preparations.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

· Recommended restriction of use

Claims contained in this document are based on our actual knowledge at the time of revision of this document. They do not undertake the properties of the product described in terms of the legal provisions for the pledge.

Placing this document as available does not unbind the product customer from its responsibility to comply with all relevant laws and regulations applicable for this product. This is especially valid in the case of product resale or resale of its mixtures or manufactured products from other areas of law and industrial

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Safety data sheet
according to 1907/2006/EC, Article 31

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Trade name: AKRINOL Flex

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property rights of third parties. If the product described above is changed by crafting or mixing with other materials, it is not possible to transfer claims from this document onto a newly made product, unless otherwise specified. In the case of product re-packaging the customer must attach the required relevant safety information as well.

· **Department issuing SDS:**

JUB d.o.o.

Product safety department

· **Contact:**

Laura Učakar

laura.ucakar@jub.eu

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

· *** Data compared to the previous version altered.**

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