

**SMARTBLOCK®**

1. Identification of Substance / Preparation and Society / Company

1.1 Identification of the product

Product Name: Smartblock.

1.2 Product typology

Concrete structures for building.

1.3. Informazioni sul fornitore della scheda di dati di sicurezza

Name: ESB Srl
Address: Via Romanino – Loc. Triangolo
24050 Cavernago (Bg) - Italy
Telephone: +39 035 4498498
Fax: +39 035 4498763.

1.4 Emergency number

0039 035 4498498 (08.00 - 17.00).

2. Hazard indications

2.1 Classification of the preparation or mixture

The present safety information data sheet is related to a preparation which has been classified as non-hazardous.

2.2 Label's elements

The mixture is not dangerous.

Particular hazards for man and environment

If correctly used, as per EBS srl statement, the product does not present particular risks.

Precautionary statements

P270: Do not eat, drink or smoke when using this product.
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P102: Keep out of reach of children.
P501: Dispose of contents/container to conformity at the local regulation.
P262: Do not get in eyes, on skin, or on clothing.
P281: Use personal protective equipment as required.

3. Information on ingredients and composition

3.1 Composition information

Product for buildings made of cement-binding, Politerm® and water.

4. Medical aid interventions

4.1 First aid measures description

Do not give medicinal or use medical equipment if not under control of medical staff. In case of accident, the first aid must be followed by trained staff in order to avoid further complication. Personal protective equipment (PPE) are not necessary for rescuers, but they must avoid dust inhalation and the contact with humid or mixed product. If this is not possible, rescuers must adopt PPE listed in





section 8. Eventual problems could be due to the presence of dusts in the product.

Eyes contact:

Do not rub your eyes. Verify that the injured worker does not wear contact lenses. If he does, remove lenses and wash immediately and abundantly his eyes with water for at least 20 minutes to remove all residues. If irritation persists, consult a doctor. Do not use creams or eye solutions before consulting a doctor or eye specialist.

Skin contact:

In case of skin contact, wash abundantly with water and neutral pH soap. Remove contaminated clothing and wash them accurately before using again. Consult a doctor in any case of irritation or burn injury.

Ingestion:

Do not induce vomit. If the person is conscious, wash abundantly his oral cavity. Consult immediately a doctor or a Poison Control Center.

Inhalation

Bring the injured worker to open air. Consult a doctor if irritation persists, if it appears again later, if you get a cough, hassles or other symptoms.

4.2 Main symptoms and effects

Eyes

Contact with eyes can cause irritations or injury potentially irreversible.

Skin

After a prolonged contact on humid or wet skin it can have irritating effects or cause dermatitis.

Inhalation

A prolonged inhalation of dust for a long time can enlarge the risk of emergence of lung diseases.

Ingestion

Accidental ingestion can cause ulceration of mouth and esophagus.

Environment

If in usual conditions, the product is not dangerous for the environment.

4.3 Indication for eventual need of contacting a doctor or special treatments

See 4.1: consign the present Safety Data Sheet.

5. Fireproofing measures

The product is non-combustible, non-flammable, non-explosive.

5.1 Extinction measure

Foam, water (best if atomized), pulverized chemicals or sand (for smaller fires).

Extinguishing means that should not be used for safety reasons

None.

Information about appropriate extinguishing means

Not relevant.

5.2 Special indication

None.

5.3 Indication for the emergency team

None.



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6. Measure in case of accidental release

6.1 Safeguards for persons, protection disposable and emergency procedure

The product is solid, so only during application phase it could generate dusts due to cutting and modelling operations. Dusts can be picked up with appropriate aspirators but workers must wear in any case PPE, like anti-dust masks, glasses, gloves and protective clothing in phase of cutting and modelling.

Avoid prolonged contact with skin and eyes and do not breathe dusts.

6.2 Environmental precautions

If correctly used, as per EBS srl statement, the product does not present particular risks.

6.3 Methods and materials for containment

Processing swarfs must be collected and/or mechanically sucked and after this they must be sent to disposal in accordance with local in force laws.

6.4 References to other sections

If necessary, see sections 8 and 13.

7. Handling and storage

7.1 Precautions safe handling

Avoid the formation of dust. Do not eat or drink during the work.

Blocks are packaged in woden pallets: packets must be moved as per in force norms since they must be moves as palletised cargo, both for utilisation with mechanical hoisters or cranes or machine with pincer. All operations must be made by trained and informed staff, who have successfully attended courses required by in force norm. Workers must use all adequate PPE.

7.2 Safe Storage condition, including eventual incompatibilities

Keep the product away from water and humid places, on levelled floors. Avoid to superimpose more than 2 pallets. Keep out from children.

Keep away from fodder, drinks and animal food. Also consult section 10.

7.3 Specific final use

None.

8. Exposure control – Individual protection

8.1 Control parameters

Manual movement of cargos: values are established by the in-force norm.

Limit value for cement dusts: TRGS 900 - limit values of air in work places.

Parameter: TWA.

Value: 3 mg/m.

Revision date: 21/06/2010.

8.2 Exposure controls

Individual protection measures, such as personal protective equipment:

Eye protection / face

Wear safety glasses or masks certified according to EN 166, when handling the product to prevent any contact with the eyes. Do not





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wear contact lenses.

Skin Protection

Wear shoes and / or safety boots and work clothing (long sleeve and leg) as well as products for skin care (including moisturizers) to ensure maximum protection from dermal prolonged contact with the wet mixture.

Hand Protection

Use protective gloves sealed, resistant to abrasion and alkalis, certified according to EN 374-parts 1,2,3.

Respiratory Protection

Where an employee will be exposed to a concentration of respirable particulate matter above the exposure limit, use appropriate respiratory protection devices, such as filtering face (FFP) certified according to EN 149 or dust masks (FMP) certified according to EN 140, EN 14387 and EN 1827.

Stockage

No prescription.

General Measures and Information: General Advices

PROFESSIONAL EXPOSURE LIMITS: following are the Professional Exposure Limits reported for the single substances which constitute the preparation and which are mentioned in point 2 of the safety information data sheet.

9. Physical and chemical properties

9.1 General information

Aspect: physical state	Solid
Smell	Odourless
pH	Alkaline (in water solution)
Boiling / Interval Point (at atmospheric pressure)	Not applicable data
Density	300-1500 Kg/m ³
Softening point	> 1000° C
Inflammability (solid, gas)	Not applicable data
Colour	Grey
Ignition point	Not applicable data
Explosive properties: explosion limit (in % of air volume): lower limit	Not explosive
Explosive properties: explosion limit (in % of air volume): higher limit	Not explosive
Combustive properties	Not applicable data
Vapour pressure	Not applicable data
Relative density	Not applicable data
Vapour density (air = 1)	Not applicable data
Hydro solubility	Insoluble
Solubility in fat and/or in organic solvents	Not applicable data
Log n-octanol/water partition coefficient	Not applicable data
Other data	/





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10. Stability and reactivity

10.1 Reactivity

The dry product is chemically stable.

10.2 Chemical stability

Stable under normal conditions. The mixed product is alkaline and incompatible with acids, salts, aluminum and other non-precious metal.

10.3 Dangerous reaction

N/A.

10.4 Conditions to avoid

The product is stable in recommended handling and storage conditions.

10.5 Incompatibility

The contact with acids, salts, aluminum and other non-precious metal can cause exothermic reactions (temperature increase).

10.6 Dangerous decomposition product

None.

11. Toxicological information

11.1 Information on toxicological effects

No toxicological data available on the mixture as a whole. Note then the concentration of each substance in assessing the toxicological effects deriving from the exposure.

Set out below is the toxicological information relating to the main substances in the solid solution.

Experimental studies have not been performed on the preparation itself. For aspects of toxicity to humans is therefore necessary to measure the individual hazardous ingredient substances to the mixture and set out in paragraph 3 of the sheet.

Acute toxicity by the oral, dermal and inhalation

No experimental value available or relevant for the substances that make up the present and prepared to step 3 of the sheet.

Corrosive and / or irritating power to skin, eyes and respiratory tract

The product contains cement dust, which is classified as dangerous to the contact, irritating to eyes, skin, respiratory tract and mucous membrane in case of prolonged contact. The cement dust mixtures, because of the high hP, can provoke skin irritation if with repeated contact and injuries to eyes in case of projection. In case of significant ingestion, it can provoke ulceration to the digestive system.

Sensitization

It has not been shown any sensitizing power of the mixture.

Long-term toxicity (subacute, subchronic, chronic)

It is believed that the mixture does not have potential or proven effects following prolonged exposure.

Carcinogenesis, mutagenesis and reproductive toxicity (fertility and development)

It is believed that the mixture does not have potential or proven carcinogenic to humans.

It is believed that the mixture does not have potential or proven mutagenic effects in humans.





It is believed that the mixture does not have potential or proven reproductive toxicity effects in humans.

Exposure

The potential routes of exposure are skin and eye contact.
Use according to good working practices.

12. Environmental information

12.1 Toxicity

Eco toxicological data are not available on the mixture as a whole. The product is not dangerous for the environment. There is no indication of toxicity in the sediment phase.

12.2 Persistence and degradability

Not relevant. After curing, the product does not pose a risk of toxicity.

12.3 Potential for bioaccumulation

Not relevant. After hardening, the product does not pose a risk of toxicity.

12.4 Mobility in soil

Not relevant. After hardening, the product does not pose a risk of toxicity.

12.5 Results of PBT and vPvB assessment

Not relevant. After hardening, the product does not pose a risk of toxicity.

12.6 Other adverse effects

Not relevant.

13. Remarks on disposal

13.1 Methods of treatment of the waste

Product:

Recover if possible or send to approved plants to incineration in controlled conditions.

For handling measures in case of accidental waste material dispersion, the general indications provided in points 6 and 7 are valid in general; nevertheless caution and specific actions in relation to the composition of the waste material must be evaluated. The product and its mixes, classified as non dangerous, do not show particular risks for an eventual disposal, if you just take care of avoiding discharge or dispersion into sewers, drains or water courses.

Package:

Also empty packages must be handled according to the regulations in force about non-dangerous products. Cautions and specific actions must be evaluated in relation to the composition of the waste material. Act in accordance with actual local and national regulation/dispositions.

14. Information about transportation

Dangerous for transport by road - ADR NO

The product does not fall within any class of danger for the transport of dangerous goods and is not, therefore, subject to its modal regulations: IMDG [by sea], ADR [road], RID [rail] ICAO / IATA [by air]. During transportation, avoid the wind dispersal by using closed containers. Make sure of cargo's stability during transport since the only package could not make it stable enough.



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15. Information about legislation

EC Regulation No. 18/12/2006. 1907.

EC Regulation No. 09/10/2008. 987.

Corrigendum to Commission Regulation EC no. 987/2008 of the Commission - 08/10/2008.

Decree of the Ministry of Health 10/05/2004.

Decree of the Ministry of Health 17/02/2005.

EC Regulation No. 22/06/2009. 552.

EC Regulation No. 16/12/2008. 1272.

EU Regulation No. 20/05/2010. 453.

Legislative Decree 09/04/2008 N. 81, as amended.

Requirements of Regulation 1907/2006/EC "REACH".

The product is a preparation according to REACH, and as such is not subject to registration, which covers those substances.

15.1 General Information

The preparation, once mixed with water, contains less than 0,0002 % of soluble chromium VI on the total dry weight, in accordance with D.M 10 May 2004 (transposal of the Directive 2001/60/CE).

Health Surveillance: frequency of visits.

As provided for in Legislative Decree no. N. 81/2008, Article 229.

The list of references to legislation are indicative and not exhaustive. The user of the product is required to investigate in each case the regulations and recommendations relating to the proper use of the product.

15.2 Chemical safety assessment

It was not carried out any Chemical Safety Assessment.

16. Other information

This Safety Data Sheet has been subject to change in accordance with Regulation 453/2010/EU amending Annex II of EC Regulation no. 1907/2006 (REACH) about "Requirements for the compilation of safety data sheets (SDS)".

Abbreviations and acronyms

ADN: Accord européen relative au transport international des marchandises dangereuses par voies de navigation intérieures [European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways].

ADR: Accord européen relative au transport international des marchandises dangereuses par route [European Agreement concerning the International Carriage of Dangerous Goods by Road].

ACGIH: American Conference of Governmental Industrial Hygienists.

LC50: Lethal Concentration 50 [Lethal Concentration for 50% of Individuals].

CLP: Classification, Labelling and Packaging [Classification, Labelling and Packaging].

CSR: Chemical Safety Report [Chemical Safety Report].

DNEL: Derived no effect level [Derived No Effect Level].

EC50: Median effective concentration [mean effective concentration].

General and / or Misc

This MSDS cancels and replaces any previous version.

The information provided here is based on the best knowledge of the compiler on the date indicated in the introduction. They are intended exclusively refer to the product indicated. They may therefore not be relevant in the case of combinations or mixtures. The user must comply with legal regulations, and make sure the update, the suitability and completeness of the information, and this in





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relation to the specific use must be made of the product.

Sources of data

Are indicated below the sources consulted in the compilation of this data sheet:

HSDB - Hazardous Substances Data Bank . Bethesda, MD: National Library of Medicine CD Rom Chem Bank.

ACGIH Threshold limit values for chemical substances and physical agents and biological exposure indices (TLVs and BEIS)

Micromedex - Poisindex Toxicologic Managements - computerized database.

Lewis, Richard J. Sr. Wiley (2000) Sax 's Dangerous Properties of Industrial Materials - Interscience Publication. Tenth Edition.

Draft Marrubini MR, Laurenzi R. Ghezzi, P. Birds Acute poisoning mechanisms, diagnosis and therapy . Second Edition . Editorial Organization Medical Pharmaceuticals, Milan, 1992.

RTECS - Registry of Toxic Effects of Chemical Substances CD Rom Chem Bank - National Library of Medicine of Bethesda (USA) by the National Institute for Occupational Safety and Health (NIOSH).