


In compliance with European Regulation (EC) 1272 / 2008 (CLP) Revision date 27.07.2018
 Version 02

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

1.1	Product Identifier:	
	Name	SoluForm
	Synonyms	NA
	Trade names	SoluForm
1.2	Relevant identified uses of the substance	
	Main applications – non exhaustive list	Prefilled SoluForm bagwork is designed for the hand placement of concrete in and around watercourses. Uses include the creation of scour protection, void filling, underpinning to a structure subject to scour, the formation of headwalls to culverts and bridges, or the creation and protection of riverbanks and walls. Concrete remains inside the bagwork product, with the outer bag acting as the external formwork and, in the case of lined bagwork, as the means of concrete containment
1.3	Details of the supplier of the safety data sheet	
	Company name	Hoben International Limited
	Address	Manystones Lane Brassington MATLOCK Derbyshire DE4 4HF United Kingdom
	Phone No.	+44 (0) 1629 541066
	Email	info@SoluForm.co.uk
1.4	Emergency telephone number	
	Telephone number	+44 (0) 1629 541066
	Available outside of office hours?	No

2. HAZARD IDENTIFICATION

2.1	Classification of the substance	
2.1.1	<i>Classification according to Regulation (EC) No 1272/2008 [CLP]</i>	
		
2.2	Label elements	
	Hazard pictogram	
	Signal word	DANGER
	Hazard statement	H318 Causes serious eye damage. H315 Causes skin irritation. H317 May cause an allergic skin reaction.

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Precautionary statements

H335 May cause respiratory irritation.
P102 Keep out of reach of children.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
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 doctor/physician
P302+P352+P333+P313: IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention
P261+P304+P340+P312: Avoid breathing dust/fume/gas/mist/vapours/spray. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a doctor/physician if you feel unwell.
P501 Dispose of contents/container to: Harden by application of water and dispose of as concrete waste

2.3 Other hazards

When cement reacts with water, or when the cement becomes damp, a strong alkaline solution is produced. Due to the high alkalinity, wet cement may provoke skin and eye irritation. It should be noted that under normal usage, the bags remain unopened and as such any hazards posed are limited. Hazards and risks are therefore limited to spills, or where bags are opened, which is outside the intended use of the bags.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Main constituents

- Cement – CAS No: 65997 – 15 - 1
- Lime (Calcium Carbonate) – CAS No: 471 – 34 - 1
- Fine Aggregates

3.2 Impurities

Contains < 1% respirable crystalline silica

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 SoluForm.

Following Contact with Eyes:

Do not rub eyes in order to avoid possible cornea damage as a result of mechanical stress. Incline head to injured eye, open the eyelid(s) widely and flush eye(s) immediately by thoroughly rinsing with plenty of clean water for at least 20 minutes to remove all particles. Remove contact lenses, if present and easy to do. Continue rinsing. Avoid flushing particles into uninjured

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eye. If possible, use isotonic water (0.9% NaCl). Contact a specialist of occupational medicine or an eye specialist, preferably an ophthalmologist.

Following Contact with Skin:

For dry SoluForm, remove and rinse abundantly with water. For wet SoluForm, 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 skin irritation (redness, rash, blistering) or burns.

Following Inhalation:

Move the person to fresh air and keep at rest in a position comfortable for breathing. 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.

Following 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.

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

Eyes: Eye contact with SoluForm (dry or wet) may cause serious and potentially irreversible injuries.

Skin: SoluForm may have an irritating effect on moist skin (due to sweat or humidity) after prolonged contact or may cause contact dermatitis after repeated contact. Prolonged skin contact with wet SoluForm may cause serious burns because they develop without pain being felt.

Inhalation: May cause respiratory irritation. Repeated inhalation of dust of over a long period of time increases the risk of developing lung diseases.

Medical conditions aggravated by exposure: Inhaling SoluForm dust may aggravate existing respiratory system disease(s) and/or medical conditions such as emphysema or asthma and/or existing skin and/or eye conditions.

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

When contacting a doctor/physician, take this SDS or the product label with you.

IF IN EYES: Contact a specialist of occupational medicine or an eye specialist, preferably an ophthalmologist.

5. FIRE FIGHTING MEASURES

5.1. Extinguishing media

SoluForm is not flammable. As appropriate for surrounding fire. Direct water jet may spread the fire.

5.2. Special hazards arising from the substance or mixture

SoluForm is non-combustible and nonexplosive and will not facilitate or sustain the combustion of other materials.

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5.3. Advice for fire-fighters

SoluForm poses no fire-related hazards.

General measures for a fire are applicable: Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Avoid run off to waterways and sewers.

The concrete contents are non-combustible. The other bagwork and packaging is however potentially combustible (Class A) and any fire can be extinguished with a water, foam or dry powder extinguisher

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Wear protective equipment as described under Section 8 and follow the advice for safe handling and use given under Section 7.

6.1.2 For emergency responders

Emergency procedures are not required. However, respiratory protection is needed in situations with high dust levels.

6.2. Environmental precautions

Do not wash cement down sewage and drainage systems or into bodies of water (e.g. streams).

6.3. Methods and material for containment and cleaning up.

Collect the spillage in a dry state if possible.

Dry SoluForm

Use clean up methods such as vacuum clean-up or vacuum extraction (Industrial portable units, equipped with high efficiency air filters (EPA and HEPA filters or equivalent technique) which do not cause airborne dispersion. Never use compressed air.

Alternatively, wipe-up the dust by mopping, wet brushing or by using water sprays or hoses (fine mist to avoid that the dust becomes airborne) and remove slurry. If not possible, remove by slurring with water.

When wet cleaning or vacuum cleaning is not possible and only dry cleaning with brushes can be done, ensure that the workers wear the appropriate personal protective equipment and prevent dust from spreading. Avoid inhalation of cement and contact with skin. Place spilled materials into a container. Solidify before disposal as described under Section 13.

Wet SoluForm

Clean up wet SoluForm and place in a container. Allow material to dry and solidify before disposal as described under Section 13.

Within the watercourse prefilled bagwork that is damaged or spilt within the watercourse should be laid down and not moved.

Moving damaged bags underwater risks further material being shed. Damaged bags or spilt material should be placed still, ideally covered and is to remain until the inner cementitious material has hardened, at which point it can safely be removed. It may be

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6.4.	Reference to other sections	necessary to notify the appropriate consenting body of any spillage. See sections 8 and 13 for more details.
7. HANDLING AND STORAGE		
7.1.	Precautions for safe handling	Do not handle or store near food and beverages or smoking materials.
7.1.1	Protective measures	Follow the recommendations as given under Section 8. To clean up dry SoluForm see Subsection 6.3. Measures to prevent fire: Keep away from sources of ignition. Measures to prevent aerosol and dust generation: Do not sweep. Use dry clean up methods such as vacuum clean-up or vacuum extraction, which do not cause airborne dispersion. Measure to protect the environment: Avoid uncontrolled release to the environment. Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.
7.1.2	Information on general occupational hygiene	Do not handle or store near food and beverages or smoking materials. In dusty environment, wear dust mask and protective goggles. Use protective gloves to avoid skin contact.
7.2.	Conditions for safe storage, including any incompatibilities.	Bagged SoluForm should be stored in a waterproof, dry, clean environment. Products should be stored in unopened bags clear of the ground in cool, dry conditions and protected from excessive draught in order to avoid degradation of quality. Bags should be stacked in a stable manner. Shelf life if kept dry should be 4 months
7.3.	Specific end use(s)	No additional information for the specific end uses (see section 1.2).
8 EXPOSURE CONTROLS/PERSONAL PROTECTION		
8.1.	Control parameters	
8.1.1	Exposure limit values (Workplace Exposure Limits (WEL)	WEL 8 hr Time Weighted Average (TWA): <ul style="list-style-type: none">• Total inhalable dust 10 mg/m³• Respirable dust 4 mg/m³
8.2.	Exposure controls	
8.2.1	Appropriate engineering controls	Measures to reduce generation of dust and to avoid dust propagating in the environment such as de-dusting, exhaust ventilation and dry clean-up methods which do not cause airborne dispersion.

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8.2.2 Individual protection measures such as personal protection equipment

General

During work avoid contact with fresh wet SoluForm wherever possible. Do not eat, drink or smoke when working with SoluForm to avoid contact with skin or mouth. Immediately after working with SoluForm (if skin contact is possible), workers should wash or shower. Remove contaminated clothing, footwear, watches, etc. and clean thoroughly before re-using them.

Eye/face protection

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

Skin protection

Use watertight, wear-and alkali-resistant protective gloves (eg nitrile soaked cotton gloves with CE marking) internally lined with cotton; boots; closed long-sleeved protective clothing as well as skin care products (eg barrier creams) to protect the skin from prolonged contact with wet SoluForm. Particular care should be taken to ensure that wet SoluForm does not enter the boots. For the gloves, respect the maximum wearing time to avoid skin problems

Respiratory protection

When a person is potentially exposed to dust levels above exposure limits, use appropriate respiratory protection.

Thermal hazards

Not applicable.

8.2.3 Environmental exposure controls

Environmental exposure control for the emission of SoluForm particles into air has to be in accordance with the available technology and regulations for the emission of general dust particles.

Air: Environmental exposure control for the emission of SoluForm particles into air has to be in accordance with the available technology and regulations for the emission of general dust particles.

Water: Do not wash SoluForm into sewage systems or into bodies of water, to avoid high pH. Above pH 9, negative ecotoxicological impacts are possible. Soil and terrestrial environment: No special emission control measures are necessary for the exposure to the terrestrial environment.

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9.	PHYSICAL AND CHEMICAL PROPERTIES
9.1	Information on basic physical and chemical properties
	Appearance Solid, grey powder
	Odour Odourless
	Odour threshold Not relevant
	pH Strongly Alkaline
	Melting point No data
	Density 2200 kg/m ³
	Grain shape No data
	Solubility in water No data
9.2	Other information
	No other information
10	STABILITY AND REACTIVITY
10.1	Reactivity
	When mixed with water, will harden into a stable mass that is not reactive in normal environments.
10.2	Chemical Stability
	Dry SoluForm is stable as long as it is properly stored (see Section 7) and compatible with most other building materials. They should be kept dry. Contact with incompatible materials should be avoided. Wet SoluForm is alkaline and incompatible with acids, with ammonium salts, with aluminium or other non-noble metals.
10.3	Possibility of hazardous reactions
	No hazardous reactions
10.4	Conditions to avoid
	Humid conditions. Store clear of the ground, in dry conditions, and protected from the wind and rain. Pre filled bag work should remain unopened and wrapped until ready to use. Shelf life is 4 months if kept dry.
10.5	Incompatible materials
	See 10.2 for general materials
10.6	Hazardous decomposition products
	Not relevant
11.	TOXICOLOGICAL INFORMATION
11.1	Information on toxicological effects
a)	Acute toxicity No evidence of acute toxicity.
b)	Skin corrosion/irritation SoluForm in contact with wet skin may cause thickening, cracking or fissuring of the skin. Prolonged contact in combination with abrasion may cause severe burns.
c)	Serious eye damage/irritation Direct contact with cement may cause corneal damage by mechanical stress, immediate or delayed irritation or inflammation. Direct contact by larger amounts of dry SoluForm or splashes of wet SoluForm may cause effects ranging from moderate eye irritation (e.g. conjunctivitis or blepharitis) to chemical burns and blindness

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d) Respiratory or skin sensation	Some individuals may develop eczema upon exposure to wet SoluForm dust, caused either by the high pH which induces irritant contact dermatitis after prolonged contact, or by an immunological reaction to soluble Cr (VI) which elicits allergic contact dermatitis. The response may appear in a variety of forms ranging from a mild rash to severe dermatitis and is a combination of the two above mentioned mechanisms. There is no indication of sensitisation of the respiratory system. Based on available data, the classification criteria are not met.
e) Germ cell mutagenicity	No evidence of mutagenicity
f) Carcinogenicity	No classification for carcinogenicity.
g) Reproductive toxicity	No evidence of reproductive toxicity
h) STOT-single exposure	Cement type dusts may irritate the throat and respiratory tract. Coughing, sneezing, and shortness of breath may occur following exposures in excess of occupational exposure limits. Overall, the pattern of evidence clearly indicates that occupational exposure to cement type dusts has produced deficits in respiratory function. However, evidence available at the present time is insufficient to establish with any confidence the dose-response relationship for these effects
i) STOT-repeated exposure	There is an indication of COPD. The effects are acute and due to high exposures. No chronic effects or effects at low concentration have been observed. Based on available data, the classification criteria are not met.
j) Aspiration hazard	Not applicable as not used as an aerosol.

12. ECOLOGICAL INFORMATION

12.1. Toxicity	The product is not hazardous to the environment. The addition of large amounts of SoluForm to water may, however, cause a rise in pH and may, therefore, be toxic to aquatic life under certain circumstances.
12.2. Persistence and degradability	Not relevant. After hardening, SoluForm presents no toxicity risks.
12.3. Bioaccumulative potential	Not relevant. After hardening, SoluForm presents no toxicity risks.
12.4. Mobility in soil	Not relevant. After hardening, SoluForm presents no toxicity risks.
12.5. Results of PBT and vPvB assessment	Not relevant. After hardening, SoluForm presents no toxicity risks.
12.6. Other adverse effects	Not relevant.

13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods	Do not dispose of into sewage systems or surface waters. Product - SoluForm that has exceeded its shelf life should be recycled or disposed of according to local legislation. Product - Pick up dry unused residue or dry spillage as is. Mark
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		<p>the containers. Possibly reuse depending upon shelf life considerations and the requirement to avoid dust exposure. In case of disposal, harden with water and dispose according to local legislation.</p> <p>Product – slurries</p> <p>Allow to harden, avoid entry in sewage and drainage systems or into bodies of water (e.g. streams) and dispose of as explained below under “Product - after addition of water, hardened”.</p> <p>Product - after addition of water, hardened Dispose of according to the local legislation. Avoid entry into the sewage water system. Dispose of the hardened product as concrete waste. Due to the inertisation, concrete waste is not a dangerous waste.</p>
14.	TRANSPORT INFORMATION	
14.1	UN number	Not relevant
14.2	UN proper shipping name	Not relevant
14.3	Transport hazard classes	
	ADR	Not classified
	IMDG	Not classified
	ICAO/IATA	Not classified
	RID	Not classified
14.4	Packing group	Not applicable
14.5	Environmental hazards	Not relevant
14.6	Special precautions for user	No special precautions
14.7	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not relevant
15.	REGULATORY INFORMATION	
15.1	Safety, health and environmental regulations/legislation specific for the substance or mixture	<p><i>Cement is a mixture according to REACH and is not subject to registration.</i></p> <p>Calcium Carbonate is a naturally occurring mineral and is not subject to registration under the REACH legislation as granted in Annex V, Paragraph 7</p>
15.2	Chemical safety assessment	No chemical safety assessment has been carried out by the supplier
16.	OTHER INFORMATION	
	(i)	<p>Indication of changes</p> <p>Changes have been made to comply with regulations (EC) 1907/2006 (EC) 1272/2008 (EU)2015/830</p>
	(ii)	<p>Abbreviations and acronyms</p> <p>None used</p>
	(ii)	Key literature references and sources for data

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	EH40/2005 Workplace exposure limits (Second edition, 2011)
(iv)	Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]
(v)	Relevant H-statements (number and full text) H318 Causes serious eye damage. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H335 May cause respiratory irritation.
(vi)	Training advice All employees should be given adequate training in the proper use and handling of this product and any precautions and protective equipment required under applicable regulations.
(vii)	Further information - NA

Legal Notice

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for his/her own particular use.

The information in this Safety Data Sheet was believed to be correct at the time of issue. However, no warranty is made or implied as to the accuracy or completeness of this information.

If you have purchased this product for supply to a third party for use at work, it is your duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet.

If you are an employer, it is your duty to tell your employees and others who may be affected of any hazards described in this sheet and any of the precautions which should be taken.

This Safety Data Sheet does not constitute the user's own assessment of workplace risk, and it is the user's sole responsibility to take all necessary precautions when using this product.

Health and safety advice, which must be followed, can be found on the appropriate product Material Safety Data Sheet. Users are advised to wear face mask, goggles, gloves and overalls when handling, mixing and applying cementitious products.