

1.0 Method statement

Doff External Steam Clean

Location of works:

Kings House Doff External Steam clean

Site address:

40-42 King Street West
Manchester
M34WY

Project reference: 2126.

Client: Bruntwood SciTech

Principal contractor: Amspec Ltd

Start date and end date: 22/07/2024 to 27/05/2025

Document created: 18 Jul 24

Document updated: 18 Jul 24

Revision number: 2

Document approved: 18 Jul 24

Approved by: Michelle Aidley

Prepared by: Michelle Aidley

Position: Health, Safety & Compliance Co-Ordinator

1.1 Description of activity

Removal of Algal Slimes, Lichens, Mosses and small plants from Stone and brickwork to Kings Steet Entrance as per the below image with arrows indicating the location of clean.

Proposed cleaning method- Doff Steam cleaning- Please refer to data sheet for technical information.

Working access will be via fixed scaffolding

Sequence

- Mark out areas to be treated on site and transfer onto record drawing. Photograph areas to be treated and cross reference photograph to record drawing.
- Protect surrounding surfaces that could be damaged by the subsequent treatment, including temporary masking of adjacent openings to avoid ingress of water into the interior of the building.
- Review protection and complete trial samples following the treatment procedure below to reach an agreed level of cleaning.
- Use fine water spray nozzles at least 300mm away from the wall face to provide intermittent (or pulsed), nebulous (or atomised) sprays of water playing on the masonry surface.
- Use sprays controlled by hand pumps.
- Established during the trial and may be varied as the washing is monitored. Start with ten second spraying times interspersed by four minute drying periods until the deposits are loosened.
- Monitor the washing closely and commence scrubbing as soon as the dirt becomes responsive to brushing.
- Brush with a soft bristle or phosphor bronze wire brushes making sure that masonry surface is not marked or scored.
- Monitor the washing closely to ensure that just enough water is applied to remove surface dirt but not saturate the masonry.
- Inform client if stone is becoming saturated or the dirt is not responding the brushing.
- Continue the washing and brushing until the agreed level of cleanliness is achieved or the agreed cycle is complete.
- After successful review remove all detritus and temporary protection.



1.2 PPE Requirements



Safety Hats



Safety Boots



Hi Vis Vest



Safety Gloves



Dust Mask



Safety Goggles



Protective Clothing



Long Sleeves and
Trousers

1.3 Specific PPE requirements

- **Mandatory PPE requirements are:** Hard hat, High Visibility Vest, Safety Footwear with an S3 rating, gloves (specified types as follows)

Gloves conform to EN388:2003

The traffi TG1210 glove must be worn when moving or handling, materials or for manual handling activities

The Beeswift Kutstop amber glove **must** be worn when using utility knives.

Kevlar gloves (and sleeves-gauntlets) must be worn when handling glass, regardless of the size or quantity

- Additional PPE requirements may include, goggles, safety glasses, dust masks, ear defenders. These will be specified in the task specific risk assessments, please ensure you read the PPE requirements carefully before work begins
- Dust masks must have FFP3 filters
- Operatives must be face fit tested
- Check COSHH assessments as they will specify any additional PPE requirements for products being used

1.4 Risk assessment register

- 2.1 Manual Handling - page 8
- 2.2 Fire - page 9
- 2.3 COSHH (Control of substances hazardous to health) - page 10
- 2.4 Slips, trips and falls - page 11
- 2.5 Working on fixed scaffolds - page 11
- 2.6 Exposure and release of asbestos - page 12
- 2.7 Repetitive works patterns - page 13
- 2.8 Working in occupied areas - page 13
- 2.9 Working outside - page 14
- 2.10 Using hand tools - page 15
- 2.11 Use of power tools - page 16
- 2.12 Movement of boxed materials - page 17
- 2.13 Moving pipes, rolls or irregular shaped or sized materials - page 18
- 2.14 Using a steam cleaner - page 19

1.5 COSHH register

- Limetec Hydraulic Lime Mortar - page 22
- Flint, Quartz, Silica Sand - page 27

1.6 Sequence of operations

1.6.1 General

General actions

- Inform anyone who may be affected by the work any dangers or hazards present.
- Erect signs and/or barriers as required.
- Ensure the safe use of all tools and equipment in accordance with risk assessment.
- Ensure all tools required are in good working order.
- Ensure you have all PPE as named in risk assessment.
- Carry out pre-use inspection on all PPE to check for signs of damage, defect or tampering
- Store all materials in safe piles away from common walk through areas and fire exits.

1.6.2 Manual handling

Pushing and pulling

- Pushing and pulling is done using the body's own weight; lean forward when pushing, lean backwards when pulling
- Ensure you have enough grip on the floor to be able to lean forward/ backwards
- Avoid twisting and bending your back
- Handling devices have handles/hand grips so that you can use your hands to exert a force; handle height should be between the shoulder and waist so that you can push/pull in a good, neutral posture
- Handling devices are well-maintained so that the wheels have appropriate size and they run smoothly
- Floors are hard, even and clean

1.7 Legislation

- Health and Safety Work Act 1974
- Fire Safety Act 2021
- The Management of Health and Safety at Work Regulations 1999, amendment 2006
- Workplace (Health, Safety and Welfare) Regulations 1992
- The Control of Asbestos Regulations 2012
- Provision and Use of Work Equipment Regulations (PUWER) 1998
- The Reportable Injuries Diseases & Dangerous Occurrence Regulations 2013 (RIDDOR)
- Control of Substances Hazardous to Health Regulations 2002
- The Work at Height Regulations 2005
- The Personal Protective Equipment at Work Regulations 2022
- The Manual Handling Operations Regulations 1992
- The Construction (Design and Management) Regulations 2015

1.8 Welfare requirements

Welfare arrangements will be provided at induction and will be outlined in the construction phase plan

Welfare facilities will consist of

- Toilets with hand washing and drying provisions
- Washing facilities suitable for the work taking place
- Drinking water, hot and cold or warm water
- All welfare areas will have adequate shelter, heating, lighting, ventilation and be suitable cleaned
- Rest areas with tables and chairs
- Provisions for heating food and water

Welfare areas must be kept clean and tidy at all times

Waste must be removed immediately after use and placed in waste bins provided

Smoking, vaping or e-cigarettes are not permitted in any welfare locations

1.9 Hazardous substances

COSHH Assessments will be in place for all hazardous substances

These must be read before work begins

1.10 Tools and equipment

- All equipment or tools brought on to premises will be of sound construction and will meet the statutory requirements applicable to these tools or equipment.
- Tools and equipment used on site will be inspected by competent staff on a regular basis to ensure they are fit for purpose.
- Electrical tools will be regularly PAT tested.
- Only competent operatives will use equipment that requires adequate training.
- Any unused tools will be kept locked in toolboxes.
- Step ladders/podium steps/access towers
- Power tools (battery or 110v)
- Buckets
- Cloths
- Window cleaning tools
- Pressure washers
- Vacuum cleaners

Refer to risk assessment specific control measures for any tools & equipment.

1.11 Manual handling

Manual handling aids will be used if available

The Manual Handling Operations Regulations (MHOR) 1992 establish a clear hierarchy of measures for dealing with risks from manual handling, these are:

- Avoid hazardous manual handling operations so far as is reasonably practicable.
- Assess any hazardous manual handling operations that cannot be avoided.
- Reduce the risk of injury so far as is reasonably practicable.
- The workforce will be trained to, observe safe lifting techniques, and safely handle loads.
- No one will be expected to lift on their own, materials weighing more than 25kg.
- Safe manual handling procedures should be followed at all times.

There are some basic principles that everyone should observe prior to carrying out a manual handling operation:

- Ensure that the object is light enough to lift, is stable and unlikely to shift or move.
- Heavy or awkward loads should be moved using a handling aid.
- Make sure the route is clear of obstructions.
- Make sure there is somewhere to put the load down wherever it is to be moved to.
- Stand as close to the load as possible, and spread your feet to shoulder width.
- Bend your knees and try and keep the back's natural, upright posture.
- Grasp the load firmly as close to the body as you can.
- Use the legs to lift the load in a smooth motion as this offers more leverage reducing the strain on your back.
- Carry the load close to the body with the elbows tucked into the body.
- Avoid twisting the body as much as possible by turning your feet to position yourself with the load.

When ever manual handling is to be undertaken, especially if it is an uncommon or high risk task, an assessment of four specific activities – Task, Individual, Load and Environment (easily remembered by the acronym TILE) needs to be implemented:

T - The Task

Does the activity involve twisting, stooping, bending, excessive travel, pushing, pulling or precise positioning of the load, sudden movement, inadequate rest or recovery periods, team handling or seated work?

I - The Individual

Does the individual require unusual strength or height for the activity, are they pregnant, disabled or suffering from a health problem. Is specialist knowledge or training required?

L - The Load

Is the load heavy, unwieldy, difficult to grasp, sharp, hot, cold, difficult to grip, are the contents likely to move or shift?

E- The Environment

Are there space constraints, uneven, slippery or unstable floors, variations in floor levels, extremely hot, cold or humid conditions, poor lighting, poor ventilation, gusty winds, clothing or Personal Protective Equipment that restricts movement?

All work will be undertaken by qualified competent persons with experience of the type of work described above, and in all cases in full accordance with safety procedures specified in the company's health and safety Policy.

The work activities described within this method statement and all associated safety measures are not to be deviated from in any way. If, for any reason, the method statement cannot be implemented in full or should the described process be found inadequate for the purpose of providing a safe working environment, the affected activities must cease until such time as the method statement has been amended and re-approved as appropriate with any changes communicated by a toolbox talk to all employees involved before work recommences.

2.0 Risk assessment

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Example risk matrix

Likelihood 4
 x
 Severity 5
 =
 Risk/residual risk 20

			Likelihood				
			Very Unlikely	Unlikely	Possible	Likely	Very likely
			1	2	3	4	5
Severity	Negligible	1	1	2	3	4	5
	Minor	2	2	4	6	8	10
	Moderate	3	3	6	9	12	15
	Major	4	4	8	12	16	20
	Extreme	5	5	10	15	20	25

2.1 Manual Handling

2.1.1 Task: Moving of materials of a regular shape and size

Hazard	Risk	Control measures	RR
Injuries sustained from incorrect manual handling of materials with a regular shape and size	<div>5</div>	PE: Gloves (with grip properties), goggles or spectacles, safety boots, hard hat	<div>2</div>
	x		x
	<div>3</div>	Manual handling training provided, if a formal certificate is unavailable a detailed toolbox talk will be implemented before work commences	<div>3</div>
	=		=
	<div>15</div>	All manual handling tasks take into account the TILEO method (task, individual, load, environment, other) – refer to tool box talk	<div>6</div>
		Mechanical lifting used where required	
		Ensure that all aspects of manual handling are considered, including:	
		Lifting	
		Carrying	
		Twisting	
		Stooping	
		Reaching	
		Pushing	
		Pulling	
		Offloading	
		Repetitive handling	
		Longer distance carrying	
		If any issues are identified this must be reported to site management immediately	
		Break the load into more manageable loads where possible.	
		Ensure lighting is adequate and walkway is cleared from debris and materials.	
		Secure load properly before moving	
		Check the weight of the load before handling	
Persons at risk: User			

2.2 Fire

2.2.1 Task: Fire

Hazard	Risk	Control measures	RR
Serious injury / fatality	5	Trained and competent Fire Marshal/warden to be identified before work commences	1
	x		x
	4	Emergency procedure in place and delivered at induction	5
	=	Fire risk assessment to be carried out before work commences	=
	20	Emergency escape routes to be identified and kept free from obstruction at all times	5
		Flammable materials must be sufficiently stored , held in small quantities and segregated in line with the COSHH assessment(s)	
		Emergency signage to be provided	
		Fire fighting equipment to be positioned throughout at designated points.	
		Fire fighting equipment only to be used by trained operatives and not to be used for anything other than their intended use	
		A Fire assembly point to be established and all operatives informed of the location	
Method of raising the alarm to be identified and covered in site induction			
Smoke/Heat detection to be in place and identified before work begins (this must be outlined in the construction phase plan and fire risk assessment before work begins)			
Hot works permits to be carried out for any hot works taking place			
No hot works to be carried out 1 hour before closure			
Designated hot works stations to be implemented			
Display warning signage to warn others of areas of no access and hot works taking place			
Fire Risk assessment in place			
Fire emergency escape plan in plan			
Persons at risk: All site operatives			

2.3 COSHH (Control of substances hazardous to health)

2.3.1 Task: COSHH (Control of substances hazardous to health)

Hazard	Risk	Control measures	RR
Major or minor injuries	<div>2</div> <div>x</div>	PPE: Review all COSHH Assessments before work begins to ensure PPE requirements are understood and in place before work begins	<div>1</div> <div>x</div>
	<div>3</div> <div>=</div>	Ensure a COSHH assessment is in place for the following; Chemicals	<div>3</div> <div>=</div>
	<div>6</div>	Products containing chemicals	<div>3</div>
		Fumes Dusts Vapours Mists Nanotechnology Gases and asphyxiating gases and Biological agents (germs). If the packaging has any of the hazard symbols then it is classed as a hazardous substance. Germs that cause diseases such as leptospirosis or legionnaires disease and germs used in laboratories. All COSHH items kept in small quantities and must be stored in a, well ventilated, lockable & secure area (in line with COSHH assessment storage information) MSDS available along with COSHH assessments Ensure area is well ventilated.	
Persons at risk: All site operatives			

2.4 Slips, trips and falls

2.4.1 Task: Movement at ground level

Hazard	Risk	Control measures	RR
Severe strains, sprains and muscle breaks	<div>3</div> <div>x</div>	PPE: Safety footwear with steel toe cap and mid sole protection, hard hat, high visibility vest	<div>2</div> <div>x</div>
	<div>3</div> <div>=</div>	Good housekeeping monitored on site by all operatives	<div>3</div> <div>=</div>
	<div>9</div>	Keep walkways and working areas clear at all times	<div>6</div>
		Ensure emergency exit routes are clear and free from obstruction at all times	
		Ensure any spillages are cleaned up immediately.	
		Ensure lighting is sufficient.	
		Ensure safety footwear is worn and kept in good condition, particularly the sole and grip	
		Carry out regular checks on footwear to ensure that the sole/grip is in good condition	
		If any issues are identified this must be rectified before work continues	
Persons at risk: All site operatives			

2.5 Working on fixed scaffolds

2.5.1 Task: Working on fixed scaffolds

Hazard	Risk	Control measures	RR
Falls from height, collapse of scaffold	<div>5</div> <div>x</div>	Scaffolding to be assembled by a trained and competent scaffolding sub-contractor	<div>1</div> <div>x</div>
	<div>3</div> <div>=</div>	Once erected, a certificate of inspection must be completed and obtained from the scaffold inspector	<div>3</div> <div>=</div>
	<div>15</div>	A weekly inspection to be arranged and in place (carried out by the scaffold sub-contractor)	<div>3</div>
		Foreman & Site Managers to undergo scaffold awareness course	
		The scaffold must be tagged after assembly and updated after each inspection	
		Any issues are identified must be reported to site management immediately	
		Scaffold structures must be updated on the temporary works register and managed by the Temporary works coordinator and the Temporary works supervisor.	
Persons at risk: All site operatives, Public			

2.6 Exposure and release of asbestos

2.6.1 Task: Exposure and release of asbestos

Hazard	Risk	Control measures	RR
Fatal disease (asbestosis) caused by inhaling asbestos fibres	4	PPE: Safety footwear with steel toe cap and mid sole protection, hard hat, high visibility vest	2
	x		x
	5	Asbestos refurbishment and demolition survey to be carried out to identify location, condition and type of any asbestos containing materials within the building before work commences	5
	=		=
	20	The asbestos survey must be read at induction by all operatives to ensure ACM locations are known before work begins	10
		If the existing survey does not cover the area(s) where work is carried out STOP WORK and report to site management immediately	
		If asbestos is suspected,	
		STOP WORK	
		-Report to site management immediately	
		- Refer to the HSE guidance document EM1 'Asbestos essentials' before work continues	
		-Display warning signage and put physical barriers around the area to prevent access	
		-An approved asbestos contractor must be appointed immediately, and samples taken of the suspected ACM	
		- Work must not continue until results of the samples are returned.	
		- If results are negative, work can re-commence	
		- If results are positive this will be removed by a licenced contractor before works commence	
		Asbestos awareness training provided for employees	

Persons at risk: All site operatives

2.7 Repetitive works patterns

2.7.1 Task: Repetitive works patterns

Hazard	Risk	Control measures	RR
Upper limb injuries	2		1
	x	Ensure adequate rest breaks are given to the operative, possibly more than normal.	x
	2		2
	=	Where possible try to use job rotation with another operative.	=
	4		2

Persons at risk: User

2.8 Working in occupied areas

2.8.1 Task: Working in areas of high volume of movement

Hazard	Risk	Control measures	RR
Collisions or falls from high traffic areas	3	Work areas to be visibly cordoned off and alternative routes marked	1
	x	Traffic management plan to be implemented, detailing the designated vehicle and pedestrian routes.	x
	3		3
	=	Plant and vehicle movements will only be allowed under the direction of a traffic marshal	=
	9	Pedestrian routes to be protected by fixed barriers such as stop blocks	3

Persons at risk: All site operatives

2.9 Working outside

2.9.1 Task: Working outside

Hazard	Risk	Control measures	RR
Heatstroke/ sunburn	4	In advance of significantly hot weather, operatives will receive a toolbox talk regarding the hazards, risks and control measures in place.	1
	x		x
	5	In warmer months, sun-protective clothing," such as long sleeves and full length trousers"	5
	=		=
	20	A minimum of SFP30 sun cream will be provided for all operatives, where required, operatives are expected to re-apply it every 2-3 hours when working outdoors.	5
		Operatives are to take regular breaks, rehydrating and resting in the shade where possible.	

Persons at risk: All site operatives

2.9.2 Task: Working outside

Hazard	Risk	Control measures	RR
Cold weather	4	In advance of significantly cold weather, operatives will receive a toolbox talk regarding the hazards, risks and control measures in place.	1
	x		x
	5	In colder months, suitable warm clothes will be worn, suitable heating will be arranged within the welfare areas.	5
	=		=
	20	Operatives are to take regular breaks, drinking warm drinks and resting in the warmth.	5

Persons at risk: All site operatives

2.10 Using hand tools

2.10.1 Task: Using portable hand tools

Hazard	Risk	Control measures	RR
Injuries to hands sustained from incorrect use of portable hand tools	4	Always choose the right tool for the job	1
	x	All operatives to be trained in the safe use of hand tools before starting works and have necessary experience to use each hand tool	x
	2	Tools used shall have inherent safety features where possible, such as retractable blades for knives	2
	=		=
	8	Keep cutting tools sharp, so that they cut true without needing to be forced	2
		Tools should be checked regularly for damage and any item to be found damaged or defective taken out of use immediately	
		Guards to be used where available and never removed or adjusted from the intended position	
		All portable hand tools are to be used as per the manufacturers instruction	

Persons at risk: User

2.10.2 Task: Using retractable knife

Hazard	Risk	Control measures	RR
Cuts to body or hands whilst using retractable knife	4	Retractable knife or chosen cutting device to be used that is suitable for the job, only utilise knives with molded plastic guard or retractable blade	1
	x	Knives should be checked before use and fitted with a sharp blade before beginning work	x
	3	Knife to be stored in a safely away when not in use	3
	=		=
	12	Damaged or defective tools to be discarded using appropriate methods if they cannot be repaired	3

Persons at risk: User

2.11 Use of power tools

2.11.1 Task: Use of power tools

Hazard	Risk	Control measures	RR
Electrocution causing serious or fatal injuries whilst using portable power tools	<div>3</div>	Only 110v tools used on site.	<div>1</div>
	x	Examine each tool before use and do not use damaged tools.	x
	<div>5</div>	Check all guarding is in place before use.	<div>5</div>
	=	Ensure you have abrasive wheel or cartridge tool training before using these specific tools.	=
	<div>15</div>	Tools must be PAT tested annually. (arrange this with the office)	<div>5</div>
		Vibration tools should only be used for short periods of time.	
		Ensure you have all required PPE. Goggles must be worn at all times and ear defenders if noise is excessive.	

Persons at risk: User

2.12 Movement of boxed materials

2.12.1 Task: Movement of general boxed materials

Hazard	Risk	Control measures	RR
Injuries sustained from incorrect manual handling of boxed materials	<div>4</div> <div>x</div> <div>3</div> <div>=</div> <div>12</div>	<p>All hazardous manual handling operations should be avoided so far as is reasonably practicable</p> <p>The workforce will be trained to observe safe lifting techniques, and safely handle loads for materials of boxed materials</p> <p>Any heavy or awkward loads should be moved using a handling aid</p> <p>If not using handling aids, consider reducing weight of load by breaking up materials to a more manageable size</p> <p>If breaking up into smaller loads consider frequency of bending and how this can be managed efficiently with site operatives</p> <p>Consider lifting in teams if load is already considered within acceptable limits</p> <p>Any of the regular shaped materials should be light, stable and unlikely to shift or move during lifting</p> <p>Before undertaking any manual handling operations, make sure the route is clear of obstructions and somewhere to put the load down wherever it is to be moved to</p> <p>All operatives to be wearing correct PPE for the job</p> <p>The operative should stand as close to the load as possible, with feet spread to shoulder width, bent knees and the back in a natural, upright posture</p> <p>The user should grasp the load firmly and as close to the body as possible</p> <p>The legs should be used to lift the load in a smooth motion, this offers more leverage reducing the strain on the user's back</p> <p>Carry the load close to the body with the elbows tucked into the body</p> <p>Avoid twisting the body as much as possible by turning your feet to position yourself with the load</p> <p>Individual fitness for task to be confirmed; HSE recommended lifting load guidance to be followed; avoid twisting / stopping where possible; toolbox talk on manual handling to be completed</p> <p>Reduce the risk of injury so far as is reasonably practicable</p>	<div>1</div> <div>x</div> <div>3</div> <div>=</div> <div>3</div>
Persons at risk: User			

2.13 Moving pipes, rolls or irregular shaped or sized materials

2.13.1 Task: Moving pipes, rolls or irregular shaped or sized materials

Hazard	Risk	Control measures	RR
Injuries sustained from incorrect manual handling of pipes, rolls or irregular shape or sized materials	4	All hazardous manual handling operations should be avoided so far as is reasonably practicable	1
	x		x
	3	The workforce will be trained to observe safe lifting techniques, and safely handle loads for materials of regular shape or size	3
	=		=
	12	Any heavy or awkward loads should be moved using a handling aid	3
		If not using handling aids, consider reducing weight of load by breaking up materials to a more manageable size	
		If breaking up into smaller loads consider frequency of bending and how this can be managed efficiently with site operatives	
		Consider lifting in teams if load is already considered within acceptable limits	
		It may be possible to roll drums of cable, this should be undertaken as a last resort if the above fails; the area should be cleared and movement of drum controlled by a team of operatives	
		Before undertaking any manual handling operations, make sure the route is clear of obstructions and somewhere to put the load down wherever it is to be moved to	
		All operatives to be wearing correct PPE for the job	
		The operative should stand as close to the load as possible, with feet spread to shoulder width, bent knees and the back in a natural, upright posture	
		The user should grasp the load firmly and as close to the body as possible	
		The legs should be used to lift the load in a smooth motion, this offers more leverage reducing the strain on the user's back	
		Carry the load close to the body with the elbows tucked into the body	
		Avoid twisting the body as much as possible by turning your feet to position yourself with the load	
		Individual fitness for task to be confirmed; HSE recommended lifting load guidance to be followed; avoid twisting / stopping where possible; toolbox talk on manual handling to be completed	
		Reduce the risk of injury so far as is reasonably practicable	
Persons at risk: All site operatives			

2.14 Using a steam cleaner

2.14.1 Task: Use of steam cleaners

Hazard	Risk	Control measures	RR
Contact with hot surfaces and steam	<div>5</div> <div>x</div> <div>5</div> <div>=</div> <div>25</div>	Steam cleaners are only to be used and cleaned by trained employees The manufacturer's user instructions are to be followed where these are available Suitable personal protective equipment is to be worn as per the manufacturer's user instructions. PPE is to be used at all times, and if damaged or mislaid, operatives are to report this to their manager Operatives are not to point the steam nozzle at any part of their body or towards any other person	<div>1</div> <div>x</div> <div>5</div> <div>=</div> <div>5</div>
Persons at risk: All site operatives			
Trailing cables	<div>5</div> <div>x</div> <div>3</div> <div>=</div> <div>15</div>	The length of trailing cables is to be reduced and the use of extension leads minimised by using the nearest electrical socket outlet. Cables are to be kept away from the area being steam cleaned and behind the user	<div>1</div> <div>x</div> <div>3</div> <div>=</div> <div>3</div>
Persons at risk: All site operatives			
Electrical hazards	<div>5</div> <div>x</div> <div>5</div> <div>=</div> <div>25</div>	The steam nozzle is not to be directed close to electrical equipment or sockets	<div>1</div> <div>x</div> <div>5</div> <div>=</div> <div>5</div>
Persons at risk: All site operatives			

Site briefing and induction form

Doff External Steam Clean

All persons who have signed below confirm that they have been briefed on the safe working methods and arrangements detailed in this method of work statement.

[illegible]

Supervision and personnel

Name	Role	Phone	Date	Signature
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COSHH assessment

Limetec Hydraulic Lime Mortar

Overview

- **Reference:** 10510
- **Composition:** Composes: Aggregate, natural lime (NHL), sometimes high calcium lime (CL90) and sometimes pigments.
- **Quantity kept on site:** 2 bags
- **Quantity expect to be used:** 2 bags
- **Quantity used in one day:** 2
- **Method of use:** Filling
- **Number of people involved in activity:** 2
- **Person(s) at risk:** All site operatives
- **Duration of exposure:** 2 to 4 hours
- **Frequency of exposure:** Every day
- **Location of use:** Outside

Level of risk

M

Medium

Lost time, medical treatment required

First aid



Eyes

Speed is essential. Irrigate with eyewash or clean with water until free off debris, seek medical attention.



Skin

An irritant (Xi) may cause mild burning sensation in the presence of moisture. Wash affected area immediately with plenty of water. Remove and wash contaminated clothing.



Inhalation

May cause irritation and inflammation to the respiratory tract. Irrigate nose and throat with water. Remove from exposure and keep warm and at rest. Seek medical advice if necessary



Ingestion

Wash out mouth with water and give copious amounts of water to drink. Larger doses may irritate gastrointestinal tract. Do not induce vomiting. Seek medical advice if necessary.

Handling precautions and PPE



Respiratory



Hand

Wear suitable gloves, overalls and eye/face protection. Rubber, leather or fabric/composite gloves provide suitable hand protection.



Skin

Long sleeved overalls are recommended, close fitting at openings. Wear boots that resist dust penetration.



Eye

Wide vision full goggles with anti-mist for eye protection.

- **Maximum/workplace exposure limit:**
 - Long term exposure limit (LTEL 8hr TWA): N/A
 - Short term exposure limit (STEL 15min TWA): N/A
- **Factors which increase risks:** N/A
- **Storage precautions:** Store in a cool dry environment free from draughts. Minimise contact with air and moisture.
- **Flashpoint:** N/A
- **Transport precautions:** N/A
- **Disposal precautions:** Disposal should be in accordance with local and national legislation.
- **Spill procedures:** Steps to be taken in the event of spillage or release. Contain the spillage. Either keep the material dry and use vacuum suction unit or shovel into bags or damp down and shovel into bags. Cover area if possible to avoid unnecessary dust

hazard. Avoid contamination of watercourses and drains, any spillages off site must be alerted to the Environmental Agency or other regulatory body.



Limetec Hydraulic Lime Mortar

C.O.S.H.H Datasheet

1. IDENTIFICATION OF THE SUBSTANCE AND COMPANY

PRODUCT NAME: Limetec Hydraulic Lime Mortar
SUPPLIER: Limetec Ltd
Office 2
5A Grove Street
Wantage
OX12 7AB
Tel: 01235 434 300

2. COMPOSITION/INFORMATION ON INGREDIENTS

Composes: Aggregate, natural lime (NHL), sometimes high calcium lime (CL90) and sometimes pigments

3. HAZARD IDENTIFICATION

Irritating to skin and eyes. Can cause a mild burning sensation to the skin in the presence of moisture. Risk of serious damage to the eyes. Generates slight heat in the presence of water. It is advisable to ensure that eyewash facilities are available when the product is handled.

4. FIRST AID MEASURES

SKIN: An irritant (Xi) may cause mild burning sensation in the presence of moisture. Wash affected area immediately with plenty of water. Remove and wash contaminated clothing.

EYES: Speed is essential. Irrigate with eyewash or clean with water until free off debris, seek medical attention.

INHALATION: May cause irritation and inflammation to the respiratory tract. Irrigate nose and throat with water. Remove from exposure and keep warm and at rest. Seek medical advice if necessary.

INGESTION: Wash out mouth with water and give copious amounts of water to drink. Larger doses may irritate gastrointestinal tract. Do not induce vomiting. Seek medical advice if necessary.

FURTHER TREATMENT: No known delayed effects. Prolonged or repeated contact with skin may result in severe irritation or dermatitis.

Prolonged or repeated inhalation of high dust concentrations may cause ulceration and perforation of the nasal septum and pneumonitis.

5. FIRE FIGHTING MEASURES

Non-combustible and inhibits the spread of flame. No special fire fighting procedures or explosion hazard is identified.

6. ACCIDENTAL RELEASE MEASURES

Steps to be taken in the event of spillage or release. Contain the spillage. Either keep the material dry and use vacuum suction unit or shovel into bags or damp down and shovel into bags. Cover area if possible to avoid unnecessary dust hazard. Avoid contamination of watercourses and drains, any spillages off site must be alerted to the Environmental Agency or other regulatory body.

7. HANDLING AND STORAGE

7.1 Handling

Keep dust levels to a minimum. Avoid contact with skin and eyes. Avoid inhalation of high concentrations of dust. Use barrier cream if necessary.

7.2 Storage

Store in a cool dry environment free from draughts. Minimise contact with air and moisture.

7.3 Ventilation requirements

Ventilation equipment may be needed to ensure dust levels are below OES.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

8.1 Handling systems should preferably be enclosed or suitable ventilation installed to maintain atmospheric dust below OEL (occupational exposure limit). All ventilation systems should be filtered before discharge.

8.2 If the atmospheric dust exceeds OEL wear suitable personal protective equipment. Use approved dust respirators to EN 149 category FFP2 or air stream helmet for heavy exposure.

8.3 Wear suitable gloves, overalls and eye/face protection. Rubber, leather or fabric/composite gloves provide suitable hand protection. Long sleeved overalls are recommended, close fitting at openings. Wide vision full goggles with anti-mist for eye protection. Wear boots that resist dust penetration.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form –	Solid of varying sizes. Lump, granular or fine powder.
Colour –	Creamy, grey or coloured in dry form.
Odour –	Faint earthy odour.
pH –	1.5 - 13 (as aqueous solution approx. 2g/litre).

Solubility in water (NHL content only) – 1760mg/litre saturated solution at 100°C (reacts with water for calcium hydroxide).

10. STABILITY AND REACTIVITY

10.1 Stable.

10.2 Hazardous decomposition products – none.

11. TOXICOLOGICAL INFORMATION

High concentrations of dust are an irritant to the respiratory tract. Gross inhalation may cause inflammation, ulceration, perforation of the nasal septum and pneumonitis. Prolonged repeated inhalation of high dust concentration may cause similar effects. Irritant to the skin in the presence of moisture. May cause burns. Prolonged and repeated contact with skin may result in severe irritation or dermatitis. Very painful irritant to the eyes – may cause burns. Risk of severe and permanent damage to eyes. If swallowed, may cause corrosion damage to the gastrointestinal tract. The product is considered to be non-toxic.



12. ECOLOGICAL INFORMATION

Strongly soluble in water to form alkaline solution. Low mobility in moist ground conditions. Non bio-degradable, reacts with moisture to form calcium hydroxide, reacts with atmospheric and dissolved carbon dioxide to form calcium carbonate. The product is considered to be non-toxic.

13. DISPOSAL CONSIDERATIONS

Disposal should be in accordance with local and national legislation.

14. TRANSPORTATION INFORMATION

Not classified as hazardous for transportation.

15. REGULATORY INFORMATION

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002.

Classification for supply: Irritant Classification for Conveyance: None

Risk phrases R36/38 – Irritating to eyes and skin R41 – Risk of serious damage to eyes R43

Contact with skin may cause mild burning sensation

Safety phrases S2 – Keep out of reach of children S22 – Do not breathe dust S24/25 Avoid contact with skin and eyes

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice S37 – Wear suitable gloves S39 – Wear eye/face protection

Low Chromate content according to TRGS 613.

16 OTHER INFORMATION

HSE Guidance Notes EH40: Occupational Exposure Limits (current edition) EH42: Monitoring Strategies for Toxic Substances EH44: Dust in the Workplace: General principles of Protection.

COSHH assessment

Flint, Quartz, Silica Sand

Overview

- **Reference:** 13163
- **Composition:** Quartz., Silica.
- **Quantity kept on site:** 2 bags
- **Quantity expect to be used:** 2 bags
- **Quantity used in one day:** 1 bag
- **Method of use:** Filling
- **Number of people involved in activity:** 2
- **Person(s) at risk:** All site operatives
- **Duration of exposure:** 2 to 4 hours
- **Frequency of exposure:** Every day
- **Location of use:** Outside

Level of risk

 **Low**
First aid required

First aid



Eyes

Irrigate immediately with copious amounts of water for 15 minuets, paying particular attention to under the eyelid. Seek medical attention if irritation persists.



Skin

Remove contaminated clothing & wash affected areas with soap & water. If irritation persists, seek medical attention.



Inhalation

Remove patient to fresh air, loosen tight clothing and seek medical attention. Keep patient warm & comfortable while seeking medical attention.



Ingestion

Do not induce vomiting, If the patient is conscious rinse mouth out with water, & give200-300ml (1/2 a pint) of milk or water to drink. Seek medical advice.

Handling precautions and PPE



Respiratory

Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection should be worn.



Hand

Protective gloves and overalls are recommended for prolonged contact.



Skin

N/A



Eye

N/A

- **Maximum/workplace exposure limit:**
 - Long term exposure limit (LTEL 8hr TWA): N/A
 - Short term exposure limit (STEL 15min TWA): N/A
- **Factors which increase risks:** N/A
- **Storage precautions:** Store in a cool dry area in sealed containers.
- **Flashpoint:** N/A
- **Transport precautions:** N/A
- **Disposal precautions:** Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1996). Landfill is the most appropriate method.
- **Spill procedures:** Remove dry materials either by a vacuum cleaner fitted with an efficient particular filter or by damping down and scooping in to a receptacle. Place reclaimed spills in a suitable closed container before disposal . Small quantities may be run into drains with plenty of water, provided that local effluent control limits are adhered to.

Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name	Flint – 441244, Quartz- 444314, Silica Sand- 444514
Chemical name	Silicon dioxide, Quartz, SiO ₂
Synonyms	Quartz; known as L.A.Sand by trade. Forms of Silica also known as Silica
Supplier	flour.
Emergency numbers	Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate, Radstock, Nr. Bath. BA3 4XE Tel: 01761 411077 E:mail: sales@bathpotters.co.uk

2. Composition

Components.	CAS	EINECS	% of composition
Quartz.	14808-60-7	2388784	>10
Silica.	7631-86-9	2315454	<90

Many forms of silica flour are >90% quartz & <10% other silica, but the hazards are the same.

3. Health Hazard Identification

Inhalation	Excessive exposure to any dusty residue may cause irritation of the respiratory tract and mucous membranes, and cause symptoms of chronic lung disease. Prolonged exposure to silica dust is likely to cause silicosis of the lungs, impaired pulmonary function & cause chronic lung damage.
Ingestion	The product is of low solubility in body fluids and likely to be of low acute toxicity.
Eyes	May cause physical irritation and inflammation.
Skin	Not a primary irritant. Any abrasive powder may give minor irritation.
General	These products are supplied in a moist water suspension, 'damp/dry', to minimise dust formation & therefore reduce the likelihood of inhalation of the material.

4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention. Keep patient warm & comfortable while seeking medical attention.
Ingestion	Do not induce vomiting, If the patient is conscious rinse mouth out with water, & give 200-300ml (1/2 a pint) of milk or water to drink. Seek medical advice.
Eyes	Irrigate immediately with copious amounts of water for 15 minutes, paying particular attention to under the eyelid. Seek medical attention if irritation persists.
Skin	Remove contaminated clothing & wash affected areas with soap & water. If irritation persists, seek medical attention

5. Fire Fighting Measures

Extinguishing Media	Suitable for surrounding fire conditions. The product is not explosive or combustible. Standard fire fighting techniques only are required, i.e. water, sand, carbon dioxide, chemical foam extinguishers etc.
Special Exposure hazard	In the event of fire the product may emit harmful or toxic fumes.
Protective equipment	Self-contained breathing apparatus.

6. Accidental Release Measures

Leaks & Spills	Remove dry materials either by a vacuum cleaner fitted with an efficient particulate filter or by damping down and scooping in to a receptacle. Place reclaimed spills in a suitable closed container before disposal (see section 13). Small quantities may be run into drains with plenty of water, provided that local effluent control limits are adhered to.
Protective equipment	Respiratory protective equipment.

7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling material. Local exhaust ventilation is required to comply with occupational exposure limits (refer to Guidance Note EH40 latest edition). It is essential that bags are resealed immediately after use to prevent moisture loss as far as possible. As the residual moisture will eventually be lost, we strongly recommend damping down periodically or conversion to a paste or slurry in order to minimise inhalation hazards. Note - Silica sand. Although the material is of a much larger overall grain size it still contains a significant amount of fine particle size material. It is advisable therefore to afford the same standards of care and hygiene to it during handling so as to ensure that the required safety standards are complied with, particularly as the material is usually supplied in a drier state.
Storage	Store in a cool dry area in sealed containers.

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended
Personal protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards prEN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical properties

Appearance & Odour	White, off-white or buff moist powder or paste, odourless
Flash point (°C)	Not applicable
Flammability	Not flammable
Explosive properties	Non-explosive
Oxidising properties	Non-oxidising
Specific gravity	2.6 (dry material)
pH value	7 (Insoluble in water)
Melting point (°C)	>1100°C

10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	None known
Hazardous decomposition products	None known
Hazardous polymerisation products	None known

11. Toxicology Information

Acute toxicology	LD ₅₀ Oral	Not known
	LD ₅₀ Dermal	Not known
	LD ₅₀ Inhalation	Not known
Health effects	Excessive exposure to any dusty residue, above Occupational Exposure Standards, may cause irritation of the respiratory tract and mucous membrane. Exposure to silica dust is likely to cause fibrosis of the pulmonary function and cause chronic lung damage.	

12. Ecological information

Ecotoxicity	Not known.
Persistence	Chemically stable and will persist in the environment.

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK: Control of Pollution (Special Waste) Regulations 1996). Landfill is the most appropriate method.

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
ADR		Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified

15. Regulatory information

EC Supply Labelling	Harmful X,	
R-Phrases	R20	Harmful by inhalation.
	R48	Danger of serious damage to health by prolonged exposure.
S-Phrases	S20/21	When using do not eat, drink or smoke.
	S22/23	Do not breath dust or fumes/spray.
	S38	In case of insufficient ventilation wear suitable respiratory equipment.

UK Occupational exposures Mg/mn³ 8 hr TWA % in product
limits*

Crystalline silica -inhalable	0.3	>10%
-respirable	0.1	

* Refer to HSE Guidance note EH40

In accordance with the H.S.E. Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk

16. Other information

General industrial hygiene practices are recommended when handling and using this product.

COSHH ACOP:	H.S.C. Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96:	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOP:	H.S.C. Approved Code of Practice for Safety Data Sheets in accordance with regulation the CHIP regulations.
HSE EH40:	HSE Guidance note EH40 on Occupational Exposure Limits, to be used in conjunction v the COSI-IH regulations.

The information contained in this safety data sheet has been prepared using the best available information. However in view of technical developments this may alter.

The material must only be used for its stated purpose and time information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

Due to the many factors outside our control when using this product we cannot accept liability for any injury, accident, loss or damage caused through its use.

26.08.21



What is DOFF?

The DOFF Integra is a market leading, expertly engineered system that utilises a normal water supply to remove some of the more resistant forms of unwanted matter from a range of surfaces. The DOFF Integra is an advancement of the original DOFF Standard, providing greater ease of operation - eg improved manoeuvrability, quick release of modular components, digital displays and easy loading.

The water supply is fed via a pump into a hot-box where it is rapidly heated to temperatures of up to 150°C. The heated water is then fed through high temperature heat resistant hoses to the special nozzle at a rate of between 3 to 5 litres per minute.

Once cleaned, the surface dries within minutes which prevents any long-term damage as a result of trapped moisture.



STONEHEALTH

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What is the DOFF most effective in removing?

Paint coatings (most oil and plastic types)
Certain types of graffiti
Bird or vermin fouling
Algae, moss, and fungi
Wax coatings
Chewing gum
Bitumen, Oil, Grease and many others, all without causing any damage or disfiguring the substrate.

What surfaces should I use the DOFF on?

We recommend the DOFF for use on surfaces such as brick, stone, concrete, tiled (glazed and encaustic), wood, faience and terracotta. It is a useful sterilisation tool for kitchens, toilets, swimming pools, hospitals and factories.

Where can I use DOFF?

DOFF can be used in Building restoration, Industry, Food production, Hygiene control, Hospitals, Factories, Transport & vehicle depots, Workshops etc.

How does DOFF work?

A normal water supply is taken through the pump into the Hotbox, where a range of temperatures of up to 150° C can be achieved. The low volume of super heated water and steam (5 litres per minute) is then fed through heat resistant hoses to special nozzles where a genuine 150° C is delivered. The surface being cleaned does not suffer any damaging pressure, thermal shock or deep saturation and dries within minutes. A range of different lances and nozzles are available.



TECHNICAL SPECIFICATION

DOFF INTEGRA

Power Supply Consumption	230 volt 50 hz 13 amp or 6.5 Kva (generator), 50 hz 30 amp or 6.5 Kva (generator), 115 volt 60 hz 30 amp or 6.5 Kva (generator), 110v 50hz 30 amp or 6.5Kva (generator)			
Water Consumption	Min 3, max 5 litres per minute. Use only clean cold water supply - if bowser or other, consult our technical team for advice			
Maximum Operating Pressure	100 bar 1450 psi			
Temperature Range	30°C to 150 °C			
Maximum Water Input temp.	30 °C			
Dry Weight kg	89 (hotbox) + 34.5 (pump) = when loaded 123.5			
Measurement mm		Length	Width	Height
	Pump	500	282	310
	Hotbox	680	630	1030
		When pump loaded length = 960		
Export Packing mm		1020	820	1150