

**Section 1.0 – Identification Of Material And Supplier**

**Product Name** : Lockwell MWE  
**Proper Shipping Name** : Colloidal silica concrete mix water enhancer  
**Recommended use** : Concrete treatment  
**Suppliers Name** : Lockwell Systems Co.,Ltd.  
199/5 Moo.21, Soi Chongsiri Parkland  
T.Bangphleeyai, A.Bangplee, Samutprakarn 10540, Thailand.  
**Country of Origin** : USA  
**Phone Number** : +662 136 3868  
**Date of Preparation** : 25 April 2017

**Section 2.0 – Hazards Identification**

**Classification of the substance or mixture**  
Non-Hazardous Chemical. Non-Dangerous Goods. According to the Model WHS Regulations and the ADG Code.

**Chemwatch Hazard Ratings**

Flammability 0  
Toxicity 0  
Body Contact 1  
Reactivity 1  
Chronic 0

Poisons Schedule: Not Applicable  
GHS Classification: Not Applicable

**Label Elements**

GHS label elements: Not Applicable  
Signal Word: Not Applicable

**Hazard statement(s)**

Not Applicable

**Precautionary statement(s) Prevention****Precautionary statement(s) Response****Precautionary statement(s) Storage****Precautionary statement(s) Disposal****Section 3.0 – Composition / Information on Ingredients****Substances**

See section below for composition of Mixtures

**Mixtures**

CAS No	%[weight]	Name
Not Available	>60	colloidal solution

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

**Section 4.0 – First Aid Measures**

- Eye Contact:** In case of contact, immediately flush eyes with plenty of water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
- Skin Contact:** In case of contact, immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.
- Inhalation:** If fumes, aerosols or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary.
- Ingestion:** If swallowed do **NOT** induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Seek medical advice.

**Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**Section 5.0 – Fire Fighting Measures****Extinguishing media**

Foam.  
Dry chemical powder.  
BCF (where regulations permit).  
Carbon dioxide.  
Water spray or fog - Large fires only.

**Special hazards arising from the substrate or mixture**

- Fire Incompatibility:** Avoid contamination with oxidizing agents i.e. nitrates, oxidizing acids, chlorine bleaches, pool chlorine etc. as ignition may result.
- Fire Fighting:** Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves in the event of a fire. Prevent, by any means available, spillage from entering drains or water courses. Use firefighting procedures suitable for surrounding area. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use.
- Fire/Explosion Hazard:** Noncombustible. Not considered a significant fire risk, however containers may burn. May emit poisonous fumes. May emit corrosive fumes.

**Section 6.0 – Accidental Release Measure****Personal precautions, protective equipment and emergency procedures**

- Minor Spills:** Clean up all spills immediately.  
Avoid breathing vapors and contact with skin and eyes.  
Control personal contact with the substance, by using protective equipment.  
Contain and absorb spill with sand, earth, inert material or vermiculite.  
Wipe up.  
Place in a suitable, labelled container for waste disposal.
- Major Spills:** **Moderate hazard**  
Clear area of personnel and move upwind.  
Alert Fire Brigade and tell them location and nature of hazard.  
Wear breathing apparatus plus protective gloves.  
Prevent, by any means available, spillage from entering drains or water course.  
Stop leak if safe to do so.  
Contain spill with sand, earth or vermiculite.  
Collect recoverable product into labelled containers for recycling.  
Neutralize/decontaminate residue (see Section 13 for specific agent).  
Collect solid residues and seal in labelled drums for disposal.  
Wash area and prevent runoff into drains.  
After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.  
If contamination of drains or waterways occurs, advise emergency services.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

**Section 7.0 – Handling and Storage****Precautions for safe handling**

- Safe handling:** Avoid all personal contact, including inhalation.  
Wear protective clothing when risk of exposure occurs.  
Use in a well-ventilated area.  
Avoid contact with moisture.  
Avoid contact with incompatible materials.  
When handling, DO NOT eat, drink or smoke.  
Keep containers securely sealed when not in use.  
Avoid physical damage to containers.  
Always wash hands with soap and water after handling.  
Work clothes should be laundered separately. Launder contaminated clothing before re-use.  
Use good occupational work practice.  
Observe manufacturer's storage and handling recommendations contained within this MSDS.  
Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.  
DO NOT allow clothing wet with material to stay in contact with skin
- Other information:** Store in original containers.  
Keep containers securely sealed.  
Store in a cool, dry, well-ventilated area.  
Store away from incompatible materials and foodstuff containers.  
Protect containers against physical damage and check regularly for leaks.  
Observe manufacturer's storage and handling recommendations contained within this MSDS.
- Do not freeze. Store between 5°C and 38°C.



# SAFETY DATA SHEET

# LOCKWELL MWE

## Conditions for safe storage, including any incompatibilities

**Suitable container:** Polyethylene or polypropylene container.  
 Packing as recommended by manufacturer.  
 Check all containers are clearly labelled and free from leaks.

**Storage incompatibility:** Avoid strong acids, acid chlorides, acid anhydrides and chloroformates.

## Section 8.0 – Exposure Controls / Personal Protection

### Control parameters

### Occupational Exposure Limits (OEL)

**Ingredient Data:** Not Available

### Emergency Limits

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
Lockwell MWE	Not Available	Not Available	Not Available	Not Available

Ingredient	Original IDLH	Revised IDLH
colloidal solution	Not Available	Not Available

### Material Data

#### Exposure controls

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly.

The design of a ventilation system must match the particular process and chemical or contaminant in use.

Employers may need to use multiple types of controls to prevent employee overexposure.

General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in specific circumstances. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection.

Provide adequate ventilation in warehouse or closed storage areas. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

#### Appropriate engineering controls:

Type of Contaminant:	Air Speed:
solvent, vapors, degreasing etc., evaporating from tank (in still air).	0.25-0.5 m/s (50-100 f/min)
aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min.)
grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)

Within each range the appropriate value depends on:

Lower end of the range	Upper end of the range
1: Room air currents minimal or favourable to capture	1: Disturbing room air currents
2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity
3: Intermittent, low production.	3: High production, heavy use
4: Large hood or large air mass in motion	4: Small hood-local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

### Personal protection



#### Eye and face protection:

Safety glasses with side shields.  
Chemical goggles.

Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience.

Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]

#### Skin protection:

See Hand protection below  
Wear chemical protective gloves, e.g. PVC.  
Wear safety footwear or safety gumboots, e.g. Rubber

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

The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.

Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:

- frequency and duration of contact,
- chemical resistance of glove material,
- glove thickness and
- dexterity

Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).

When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.

When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.

Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use.

Contaminated gloves should be replaced.

Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.

**Body protection:** See other protection below

**Other protection:** Overalls.  
P.V.C. apron.  
Barrier cream.  
Skin cleansing cream.  
Eye wash unit.

**Thermal hazards:** Not Available

### Recommended material(s)

#### Glove Selection Index

Glove selection is based on a modified presentation of the:

**"Forsberg Clothing Performance Index".**

The effect(s) of the following substance(s) are taken into account in the **computer-generated** selection:

Lockwell MWE Not Available

**Material:** CPI

\* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

\* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

## Section 9.0 – Physical and Chemical Properties

<b>Appearance:</b>	Cloudy white liquid with no odour, mixes with water.	<b>Color:</b>	Cloudy white
<b>Odour:</b>	None		
<b>Physical State:</b>	Liquid		
<b>Relative density:</b>	1.10		
<b>PH:</b>	11.4		
<b>Viscosity (cSt):</b>	22.0 @ 25°C		
<b>Freezing Point:</b>	0°C		
<b>Boiling Point:</b>	212°F (100°C)		

**Section 10.0 – Stability and Reactivity**

<b>Reactivity:</b>	See section 7
<b>Chemical stability:</b>	Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.
<b>Possibility of Hazardous Reactions:</b>	See section 7.
<b>Conditions to avoid:</b>	See section 7
<b>Incompatible materials:</b>	See section 7
<b>Hazardous decomposition products:</b>	See section 5

**Section 11.0 – Toxicology Information****Information on toxicological effects**

<b>Inhaled:</b>	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Not considered a normal route of entry.
<b>Ingestion:</b>	The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. The material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g. liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern. Not considered a normal route of entry.
<b>Skin Contact:</b>	Limited evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period. Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterized by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis. The material may accentuate any pre-existing dermatitis condition Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
<b>Eye</b>	Limited evidence exists, or practical experience suggests, that the material may cause eye irritation in a substantial number of individuals and/or is expected to produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. Repeated or prolonged eye contact may cause inflammation characterized by temporary redness (similar to



# SAFETY DATA SHEET

# LOCKWELL MWE

windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.

**Chronic:** Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.

**Toxicity:** Not Available

**Irritation:** Not Available

## Section 12.0 – Ecological Information

**Ecotoxicity:** No known significant effects or critical hazards  
**Persistence / Degradability:** Not available  
**Bioaccumulation / Accumulation:** Not available  
**Mobility in Soil:** Not available

## Section 13.0 – Disposal Considerations

**Disposal Instructions:** This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

## Section 14.0 – Transportation Information

### Labels Required

**Marine Pollutant:** No  
**HAZCHEM:** Not Applicable

**Land transport (ADG):** Not Regulated For Transport Of Dangerous Goods  
**Air transport (ICAO-IATA / DGR):** Not Regulated For Transport Of Dangerous Goods  
**Sea transport (IMDG-Code / GGVSee):** Not Regulated For Transport Of Dangerous Goods

## Section 15.0 – Regulatory Information

**Safety, health and environmental regulations / legislation specific for the substance or mixture**

National Inventory	Status
Australia - AICS	
Canada - DSL	
Canada - NDSL	
China - IECSC	
Europe - EINEC / ELINCS / NLP	
Japan - ENCS	
Korea - KECI	
New Zealand - NZIoC	
Philippines - PICCS	
USA - TSCA	

**Legend:** Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

## Section 16.0 – Other Information

### Disclaimer

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 the user's own particular use.

While the information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

**Version #: 2.0**

**Prepared by: Lockwell Systems LLC**