

SAFETY DATA SHEET

Microblock

Revision Date: 28-Mar-2019

Revision Number: 4

1. Identification of the hazardous chemical and of the supplier

Product identifier

Product Name Microblock

Other means of identification

Hazardous Material Number: HM520148

Recommended use of the chemical and restrictions on use

Recommended Use Light Weight Cement Additive

Supplier details

Halliburton Energy Service (M) Sdn Bhd
10th Floor, G Tower,
199 Jalan Tun Razak,
50400, Kuala Lumpur, Malaysia
Phone Number: +603-9206 6888

Halliburton Energy Service (M) Sdn Bhd
Labuan Base,
Ranca-Ranca Industrial Estate
Labuan FT, LAB 82223 Malaysia
Phone Number: +60 87-596 200 ext Gate B-886086263

Halliburton Energy Service (M) Sdn Bhd
Warehouse 38, Phase 2, Kemaman Supply Base (KSB)
24007, Kemaman
Terengganu, Malaysia
Phone Number : +609-862 8000

For further information, please contact

E-mail Address fdunexchem@halliburton.com

Emergency Phone number

+60 015 4 877 0772
Global Incident Response Access Code: 334305
Contract Number: 14012

2. Hazard Identification

Classification of the hazardous chemical

Not classified

Label Elements

Not classified

Hazard Pictograms

Signal Word: None

Hazard Statements Not Classified

Precautionary Statements

Prevention None

Response None

Storage None

Disposal None

Contains**Substances**

Contains no hazardous substances in concentrations above cut-off values according to the competent authority

CAS Number

NA

Other hazards which do not result in classification

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

3. Composition and information on ingredients of the hazardous chemical

| Substances | CAS Number | PERCENT (w/w) | GHS Classification - Malaysia |
|--|------------|---------------|-------------------------------|
| Contains no hazardous substances in concentrations above cut-off values according to the competent authority | NA | > 60% | Not applicable |

4. First aid measures

Description of first aid measures**Inhalation**

If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.

Eyes

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

Skin

Under normal conditions, first aid procedures are not required.

Ingestion

Under normal conditions, first aid procedures are not required.

Most important symptoms and effects, both acute and delayed

No significant hazards expected.

Indication of any immediate medical attention and special treatment needed**Notes to Physician**

Treat symptomatically

5. Fire-fighting measures

Suitable extinguishing media**Suitable Extinguishing Media**

All standard fire fighting media

Extinguishing media which must not be used for safety reasons

None known.

Physicochemical hazards arising from the chemical**Special exposure hazards in a fire**

Not applicable

Special protective equipment and precautions for fire fighters**Special protective equipment for firefighters**

Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use appropriate protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing vapors. Ensure adequate ventilation.

See Section 8 for additional information

Environmental precautions

Prevent from entering sewers, waterways, or low areas.

Methods and material for containment and cleaning up

Isolate spill and stop leak where safe. Contain spill with sand or other inert materials. Scoop up and remove.

7. Handling and storage

Precautions for safe handling

Avoid contact with eyes, skin, or clothing. This product contains quartz, cristobalite, and/or tridymite which may become airborne without a visible cloud if this product becomes dry. Avoid breathing or creating dust. Use only with adequate ventilation to keep exposures below recommended exposure limits. Wear a NIOSH certified, European Standard EN 149, or equivalent respirator when using dried product.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry location. Store in a well ventilated area. Store at temperature above 32 F (0 C). Do not freeze. Use good housekeeping in storage and work areas to prevent accumulation of dust. Close container when not in use.

8. Exposure controls and personal protection

Control parameters

Exposure Limits

| Substances | CAS Number | Malaysia OEL | ACGIH TLV-TWA |
|--|------------|----------------|----------------|
| Contains no hazardous substances in concentrations above cut-off values according to the competent authority | NA | Not applicable | Not applicable |

Appropriate engineering controls

Engineering Controls Use in a well ventilated area.

Individual protection measures, such as personal protective equipment

| | |
|--|---|
| Personal Protective Equipment | If engineering controls and work practices cannot prevent excessive exposures, the selection and proper use of personal protective equipment should be determined by an industrial hygienist or other qualified professional based on the specific application of this product. |
| Respiratory Protection | Not normally necessary. |
| Hand Protection | Normal work gloves. |
| Skin Protection | Normal work coveralls. |
| Eye Protection | Wear safety glasses or goggles to protect against exposure. |
| Other Precautions | None known. |
| Environmental Exposure Controls | Do not allow material to contaminate ground water system |

9. Physical and chemical properties

Information on basic physical and chemical properties

| | |
|-------------------------------|---|
| Physical State: Liquid | Color: Gray |
| Odor: Odorless | Odor Threshold: No information available |

| <u>Property</u> | <u>Values</u> |
|---|--------------------------|
| <u>Remarks/ - Method</u> | |
| pH: | 6 |
| Freezing Point / Range | 0 °C |
| Melting Point / Range | No data available |
| Pour Point / Range | No data available |
| Boiling Point / Range | No data available |
| Flash Point | No data available |
| Evaporation rate | No data available |
| Vapor Pressure | No data available |
| Vapor Density | No data available |
| Specific Gravity | 1.4 |
| Water Solubility | Miscible with water |
| Solubility in other solvents | No data available |
| Partition coefficient: n-octanol/water | No data available |
| Autoignition Temperature | No data available |
| Decomposition Temperature | No data available |
| Viscosity | No data available |
| Explosive Properties | No information available |
| Oxidizing Properties | No information available |
| <u>Other information</u> | |
| VOC Content (%) | No data available |

10. Stability and reactivity

Reactivity

Not expected to be reactive.

Chemical stability

Stable

Possibility of hazardous reactions

Will Not Occur

Conditions to avoid

Freezing conditions.

Incompatible materials

Hydrofluoric acid.

Hazardous decomposition products

Amorphous silica may transform at elevated temperatures to tridymite (870 C) or cristobalite (1470 C).

11. Toxicological information

Information on possible routes of exposure

Principle Route of Exposure Eye or skin contact, inhalation.

Symptoms related to exposure

Most Important Symptoms/Effects

No significant hazards expected.

Numerical measures of toxicity

Toxicology data for the components

| Substances | CAS Number | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|--|-------------------|-------------------|--------------------|------------------------|
| Contains no hazardous substances in concentrations above | NA | No data available | No data available | No data available |

| | | | | |
|---|--|--|--|--|
| cut-off values according to the competent authority | | | | |
|---|--|--|--|--|

Immediate, delayed and chronic health effects from exposure

| | |
|---------------------|---|
| Inhalation | None known. |
| Eye Contact | May cause mechanical irritation to eye. |
| Skin Contact | None known. |
| Ingestion | None known. |

Chronic Effects/Carcinogenicity No data available to indicate product or components present at greater than 0.1% are chronic health hazards.

Exposure Levels

No data available

Interactive effects

Individuals with respiratory disease, including but not limited to asthma and bronchitis, or subject to eye irritation, should not be exposed to quartz dust.

Data limitations

No data available

12. Ecological information**Ecotoxicity****12.1. Toxicity**

| Substances | CAS Number | Toxicity to Algae | Toxicity to Fish | Toxicity to Microorganisms | Toxicity to Invertebrates |
|--|------------|--------------------------|--------------------------|----------------------------|---------------------------|
| Contains no hazardous substances in concentrations above cut-off values according to the competent authority | NA | No information available | No information available | No information available | No information available |

Persistence and degradability

| Substances | CAS Number | Persistence and Degradability |
|--|------------|-------------------------------|
| Contains no hazardous substances in concentrations above cut-off values according to the competent authority | NA | No information available |

Bioaccumulative potential

| Substances | CAS Number | Bioaccumulation |
|--|------------|--------------------------|
| Contains no hazardous substances in concentrations above cut-off values according to the competent authority | NA | No information available |

Mobility in soil

| Substances | CAS Number | Mobility |
|--|------------|--------------------------|
| Contains no hazardous substances in concentrations above cut-off values according to the competent authority | NA | No information available |

Other adverse effects**Endocrine Disruptor Information**

This product does not contain any known or suspected endocrine disruptors

13. Disposal considerations**Disposal methods****Disposal methods**

Disposal should be made in accordance with federal, state, and local regulations. Bury in a licensed landfill according to federal, state, and local regulations.

Contaminated Packaging

Follow all applicable national or local regulations.

14. Transportation information**Transportation Information****UN Number**

Not restricted

UN proper shipping name:

Not restricted

Transport Hazard Class(es):

Not applicable

Packing Group:

Not applicable

Environmental Hazards:

Not applicable

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

Special precautions for user

None

HazChem Code

None Allocated

15. Regulatory information**International Agreements****Montreal Protocol - Ozone Depleting Substances:**

Does not apply.

Stockholm Convention - Persistent Organic Pollutants:

Does not apply

Rotterdam Convention - Prior Informed Consent:

Does not apply.

Basel Convention - Hazardous Waste:

Does not apply.

Safety, health, and environmental regulations specific for the hazardous chemical**Malaysia Occupation Safety and Health - Prohibition of Use Substances:**

Does not apply

Malaysia Substances Requiring Medical Surveillance:

One or more components listed.

Malaysia Environmentally Hazardous Substances (EHS):

One or more components listed.

16. Other information**Revision Date:**

28-Mar-2019

Revision Note

Update to Format

Key literature references and sources for data

www.ChemADVISOR.com/

NZ CCID

Key or legend to abbreviations and acronyms used in the safety data sheet

bw – body weight

CAS – Chemical Abstracts Service
EC – European Commission
EC10 – Effective Concentration 10%
EC50 – Effective Concentration 50%
EEC – European Economic Community
ErC50 – Effective Concentration growth rate 50%
IBC Code – International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
LC50 – Lethal Concentration 50%
LD50 – Lethal Dose 50%
LL0 – Lethal Loading 0%
LL50 – Lethal Loading 50%
MARPOL – International Convention for the Prevention of Pollution from Ships
mg/kg – milligram/kilogram
mg/L – milligram/liter
NIOSH – National Institute for Occupational Safety and Health
NOEC – No Observed Effect Concentration
NTP – National Toxicology Program
OEL – Occupational Exposure Limit
PBT – Persistent Bioaccumulative and Toxic
PC – Chemical Product category
PEL – Permissible Exposure Limit
ppm – parts per million
PROC – Process category
STEL – Short Term Exposure Limit
h - hour
d - day

Disclaimer Statement

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End of Safety Data Sheet