HALLIBURTON

SAFETY DATA SHEET EZ-MUD® GOLD

according to Regulation (EC) No. 2015/830

Revision Date: 17-Sep-2018 Revision Number: 20
Preparation Date 17-Sep-2018 Internal ID Code HM005547

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Product Name EZ-MUD® GOLD Internal ID Code HM005547

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Additive

Sector of uses SU2 - Mining, (including offshore industries)

Product category(ies) PC20 - Products such as pH-regulators, flocculants, precipitants, neutralization agents,

other unspecific

Process categories PROC4 - Use in batch and other process (synthesis) where opportunity for exposure

arises

Uses advised against Consumer use

1.3. Details of the supplier of the safety data sheet

Halliburton Energy Services

Halliburton House, Howemoss Place

Kirkhill Industrial Estate

Dyce

Aberdeen, AB21 0GN United Kingdom +44 1224 776888

www.halliburton.com

For further information, please contact:

E-mail Address: fdunexchem@halliburton.com

1.4. Emergency telephone number

+44 8 08 189 0979 / 1-760-476-3961

Global Incident Response Access Code: 334305

Contract Number: 14012

Emergency telephone - Article 45	- (EC)1272/2008			
Austria	Poison Information Centre (AT): +43-(0)1-406 43 43			
Belgium	Poison center (BE): +32 70 245 245			
Bulgaria	Bulgarian poison centre: +359 2 915-44-09 or +359 2 915-43-46			
Croatia	Centar za kontrolu otrovanja (CKO): (+385 1) 23-48-342 (Poison Control Center (PC			
	Institute for Medical Research and Occupational Health)			
Cyprus	1401; +357 22 88 7171			
Czech Republic	+420 224 919 293; +420 224 915 402			
Denmark	Poison Control Hotline (DK): +45 82 12 12 12			
Estonia	16662 (Local Poison Information Centre); (+372) 626 93 90 (International Poison			
	Information Centre)			
Europe	112			
Finland	Poison Information Centre (FI):+358 9 471 977			
France	ORFILA (FR): + 01 45 42 59 59			
Germany	Poison Center Berlin (DE): +49 030 30686 790			
Greece	+30 210 779 3777			
Hungary	+36 (06) 80 201-199			
Latvia	(+371) 67042473 (International number for the National Toxicology Centre)			
Ireland	National Poisons Information Centre (IE): +353 1 8379964			
Italy	Poison Center, Milan (IT): +39 02 6610 1029			
Netherlands	National Poisons Information Center (NL): +31 30 274 88 88 (NB: this service is only			

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	available to health professionals)
Norway	Poisons Information (NO):+ 47 22 591300
Poland	Poison Control and Information Centre, Warsaw (PL): +48 22 619 66 54; +48 22 619 08 97
Portugal	CIAV - Centro de Informação Antivenenos (Portuguese Poison Centre): + 351 213 303 271
Romania	+40 21 318 36 06
Spain	Poison Information Service (ES): +34 91 562 04 20
Sweden	Poisons Information Center (SV):+46 8 33 12 31
Switzerland	Poison Center: Tel 145; +41 44 251 51 51
Turkey	Ulusal Zehir Danisma Merkezi (UZEM) :114 Acil Saglik Hizmetleri : 112

NHS Direct (UK): +44 0845 46 47

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Not classified

United Kingdom

2.2. Label Elements

Not classified

Hazard Pictograms

Signal Word: None

Hazard Statements:

Not Classified

Precautionary Statements:

None

Contains

Substances CAS Number

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

2.3. Other Hazards

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

SECTION 3: Composition/information on ingredients

3.1. Substances Substance

Substances	EINECS	CAS Number	PERCENT (w/w)	EU - CLP Substance Classification	REACH Reg. No
Contains no hazardous substances in concentrations above cut-off values according to the competent authority	NA	NA	60 - 100%	Not classified	No data available

For the full text of the H-phrases mentioned in this Section, see Section 16

SECTION 4: First aid measures

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4.1. 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.

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Skin Wash with soap and water. Get medical attention if irritation persists.

Ingestion Do NOT induce vomiting. Give nothing by mouth. Obtain immediate medical

attention.

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

No significant hazards expected.

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

Notes to Physician Treat symptomatically

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media

Water fog, carbon dioxide, foam, dry chemical.

Extinguishing media which must not be used for safety reasons

None known.

5.2. Special hazards arising from the substance or mixture

Special exposure hazards in a fire

Decomposition in fire may produce harmful gases. Organic dust in the presence of an ignition source can be explosive in high concentrations. Good housekeeping practices are required to minimize this potential.

5.3. Advice for firefighters

Special protective equipment for firefighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use appropriate protective equipment. Avoid creating and breathing dust. Slippery when wet. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.

See Section 8 for additional information.

6.2. Environmental precautions

Prevent from entering sewers, waterways, or low areas.

6.3. Methods and material for containment and cleaning up

Scoop up and remove.

6.4. Reference to other sections

See Section 8 and 13 for additional information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with eyes, skin, or clothing. Avoid creating or inhaling dust. Ensure adequate ventilation. Slippery when wet. Wash hands after use. Launder contaminated clothing before reuse. Use appropriate protective equipment.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Store away from oxidizers. Store in a cool, dry location. Product has a shelf life of 24 months.

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7.3. Specific end use(s)

Exposure scenario No information available Other Guidelines No information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Substances	CAS Number	EU	UK	Netherlands	France
Contains no hazardous	NA	Not applicable	Not applicable	Not applicable	Not applicable
substances in					
concentrations above					
cut-off values according to					
the competent authority					

Substances	CAS Number	Germany	Spain	Portugal	Finland
Contains no hazardous substances in	NA	Not applicable	Not applicable	Not applicable	Not applicable
concentrations above cut-off values according to					
the competent authority					

Substances	CAS Number	Austria	Ireland	Switzerland	Norway
Contains no hazardous substances in	NA	Not applicable	Not applicable	Not applicable	Not applicable
concentrations above cut-off values according to					
the competent authority					

Substances	CAS Number	Italy	Poland	Hungary	Czech Republic
Contains no hazardous substances in concentrations above cut-off values according to the competent authority	NA	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Denmark	Romania	Croatia	Cyprus
Contains no hazardous	NA	Not applicable	Not applicable	Not applicable	Not applicable
substances in concentrations					
above cut-off values					
according to the competent					
authority					

Derived No Effect Level (DNEL)

<u>Worker</u>

No information available

General Population

Predicted No Effect Concentration (PNEC)

No information available.

8.2. Exposure controls

Engineering Controls

Use in a well ventilated area.

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 needed. But if significant exposures are possible then the following

respirator is recommended:

Dust/mist respirator. (N95, P2/P3)

Hand Protection Normal work gloves.

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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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State: Granules Color Off white

Odor: Odorless Odor No information available

Threshold:

Property Values
Remarks/ - Method

pH: 7.75 (1%)

No data available Freezing Point / Range **Melting Point / Range** No data available Pour Point / Range No data available **Boiling Point / Range** No data available **Flash Point** No data available Flammability (solid, gas) No data available **Upper flammability limit** No data available Lower flammability limit No data available **Evaporation rate** No data available **Vapor Pressure** No data available **Vapor Density** No data available

Specific Gravity 0.8 - 1.0

Water Solubility
Soluble in 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

9.2. Other information

VOC Content (%)

No data available

Bulk Density 52 lbs/ft3

SECTION 10: Stability and reactivity

10.1. Reactivity

Not expected to be reactive.

10.2. Chemical stability

Stable

10.3. Possibility of hazardous reactions

Will Not Occur

10.4. Conditions to avoid

None anticipated

10.5. Incompatible materials

Strong oxidizers.

10.6. Hazardous decomposition products

Ammonia. Oxides of nitrogen. Carbon monoxide and carbon dioxide.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute Toxicity

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.

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Contains no hazardous substances in concentrations above cut-off values according to the competent authority	NA	No data available	No data available	No data available

Rat = Rat, Rabbit = Rabbit, dust = dust

SECTION 12: Ecological information

12.1. Toxicity

	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

growth rate = growth rate, similar substance = similar substance, activated sludge = activated sludge, reproduction = reproduction

12.2. Persistence and degradability

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

12.3. Bioaccumulative potential

Substances	CAS Number	Bioaccumulation
Contains no hazardous substances in	NA	No information available

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concentrations above cut-off values according to the competent authority

12.4. Mobility in soil

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

12.5. Results of PBT and vPvB assessment

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

Substances	PBT and vPvB assessment	
Contains no hazardous substances in concentrations above	Not applicable	
cut-off values according to the competent authority		

12.6. Other adverse effects

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods

Disposal should be made in accordance with federal, state, and local regulations.

Contaminated Packaging Follow all applicable national or local regulations.

SECTION 14: Transport information

IMDG/IMO

UN Number
UN proper shipping name:
Transport Hazard Class(es):
Packing Group:
Not applicable
Not applicable
Not applicable
Not applicable

ADN

UN Number Not restricted
UN proper shipping name: Not restricted
Packing Group Not applicable
Environmental Hazards: Not applicable

ADR/RID

UN Number Not restricted
UN proper shipping name: Not restricted
Packing Group Not applicable
Environmental Hazards: Not applicable

IATA/ICAO

UN Number Not restricted
UN proper shipping name: Not restricted
Transport Hazard Class(es): Not applicable
Packing Group: Not applicable
Environmental Hazards: Not applicable

14.1. UN Number Not restricted

14.2. UN proper shipping name: Not restricted

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14.3.

14.4. Packing Group Not applicable

14.5. Environmental Hazards: Not applicable

14.6. Special Precautions for User None

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable

SECTION 15: Regulatory information

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

International Inventories

US TSCA Inventory Canadian Domestic Substances List (DSL) All components listed on inventory or are exempt.

All components listed on inventory or are exempt.

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

Germany, Water Endangering

WGK 2: Hazard to waters.

Classes (WGK)

Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable. Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

Substances	CAS Number	Seveso III	TA LUFT
Contains no hazardous substances in	NA	Not applicable	Not applicable
concentrations above cut-off values			
according to the competent authority			

Substances	CAS Number	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization
Contains no hazardous substances in concentrations above cut-off values according to the competent authority	NA	Not applicable	Not applicable

15.2. Chemical safety assessment

No information available

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3

None

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

bw - body weight

CAS - Chemical Abstracts Service

CLP – REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Classification, Labelling and Packaging of substances and mixtures

EC - European Commission

EC10 - Effective Concentration 10%

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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

REACH - REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the

Registration, Evaluation, Authorisation and Restriction of Chemicals

STEL - Short Term Exposure Limit

SU - Sector of Use category

Key literature references and sources for data

www.ChemADVISOR.com/

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Revision Note

SDS sections updated:

1

This safety data sheet complies with the requirements of Regulation (EC) No. 2015/830

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End of Safety Data Sheet