

SAFETY DATA SHEET

according to Regulation (EC) No. 453/2010

CLAY GRABBER®

Revision Date: 23-Oct-2015

Revision Number: 24

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product Identifier**

Product Name CLAY GRABBER®
Internal ID Code HM004931

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

Recommended Use Viscosifier
Sector of use Refer to the Annex for a listing of uses.

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

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

Emergency telephone - §45 - (EC)1272/2008	
Europe	112
Croatia	Centar za kontrolu otrovanja (CKO): (+385 1) 23-48-342 (Poison Control Center (PCC) - Institute for Medical Research and Occupational Health)
Cyprus	+210 7793777
Denmark	Poison Control Hotline (DK): +45 82 12 12 12
France	ORFILA (FR): + 01 45 42 59 59
Germany	Poison Center Berlin (DE): +49 030 30686 790
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 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
Romania	+40 21 318 36 06
Spain	Poison Information Service (ES): +34 91 562 04 20
United Kingdom	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

2.2. Label Elements

Not classified

Hazard Pictograms

Signal Word None

Hazard Statements

Not Classified

EUH210 - Safety data sheet available on request

Precautionary Statements - EU (§28, 1272/2008)

None

Contains

Substances

Hydrotreated light petroleum distillate
Ethoxylated branched C13 alcohol
Oleic acid isopropanolamide

CAS Number

64742-47-8
78330-21-9
111-05-7

2.3. Other Hazards

None known

SECTION 3: Composition/information on Ingredients

3.2. Mixtures

Mixture

Substances	EINECS	CAS Number	PERCENT (w/w)	EU - CLP Substance Classification	REACH No.
Hydrotreated light petroleum distillate	265-149-8	64742-47-8	10 - 30%	Asp. Tox. 1 (H304)	01-2119484819-18
Ethoxylated branched C13 alcohol	Not applicable	78330-21-9	1 - 5%	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Corr. 1 (H318) Aquatic Acute 1 (H400) Aquatic Chronic 3 (H412)	No data available
Oleic acid isopropanolamide	203-828-2	111-05-7	0.1 - 1%	Skin Sens. 1 (H317)	No data available

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

SECTION 4: First aid measures

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.

Skin

Wash with soap and water. Get medical attention if irritation persists. Wash off immediately with soap and plenty of water for at least 15 minutes while removing all contaminated clothing and shoes. Flush skin with large amounts of water. If irritation persists, get medical attention.

Ingestion

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

Skin contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention immediately if irritation persists.

Ingestion

Do NOT induce vomiting. Aspiration hazard if swallowed - can enter lungs and cause damage.

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

May cause allergic skin reaction.

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.

Suitable Extinguishing MediaWater spray, dry chemical, carbon dioxide (CO₂), or foam**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**

Decomposition in fire may produce harmful gases.

5.3. Advice for firefighters**Special Protective Equipment for Fire-Fighters**

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.

See Section 8 for additional information

6.2. Environmental precautions

Prevent from entering sewers, waterways, or low areas.

Prevent product from entering drains

6.3. 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.

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 breathing vapors. Wash hands after use. Launder contaminated clothing before reuse.

Handling

Avoid contact with skin, eyes and clothing. Do not breathing vapors or spray mist. Wash thoroughly after handling Remove and wash contaminated clothing before re-use

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. Keep from heat, sparks, and open flames. Keep container closed when not in use. Keep from freezing. Product has a shelf life of 9 months

Incompatible with oxidizing agents Keep away from heat and sources of ignition Keep container tightly closed Keep from freezing Shelf life 6 months

7.3. Specific End Use(s)**Exposure Scenario**

Please refer to the attached Annex for a listing of exposure scenarios.

Other Guidelines

No information available

SECTION 8: Exposure Controls/Personal Protection**8.1. Control parameters****Exposure Limits**

Substances	CAS Number	EU	UK	Netherlands	France
Hydrotreated light petroleum distillate	64742-47-8	Not applicable	Not applicable	Not applicable	Not applicable
Ethoxylated branched C13 alcohol	78330-21-9	Not applicable	Not applicable	Not applicable	Not applicable

Oleic acid isopropanolamide	111-05-7	Not applicable	Not applicable	Not applicable	Not applicable
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Substances	CAS Number	Germany	Spain	Portugal	Finland
Hydrotreated light petroleum distillate	64742-47-8	TWA: 20 ppm TWA: 140 mg/m ³	Not applicable	Not applicable	Not applicable
Ethoxylated branched C13 alcohol	78330-21-9	Not applicable	Not applicable	Not applicable	Not applicable
Oleic acid isopropanolamide	111-05-7	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Austria	Ireland	Switzerland	Norway
Hydrotreated light petroleum distillate	64742-47-8	Not applicable	Not applicable	Not applicable	Not applicable
Ethoxylated branched C13 alcohol	78330-21-9	Not applicable	Not applicable	Not applicable	Not applicable
Oleic acid isopropanolamide	111-05-7	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Italy	Poland	Hungary	Czech Republic
Hydrotreated light petroleum distillate	64742-47-8	Not applicable	Not applicable	Not applicable	Not applicable
Ethoxylated branched C13 alcohol	78330-21-9	Not applicable	Not applicable	Not applicable	Not applicable
Oleic acid isopropanolamide	111-05-7	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Denmark	Romania	Croatia	Cyprus
Hydrotreated light petroleum distillate	64742-47-8	Not applicable	Not applicable	Not applicable	Not applicable
Ethoxylated branched C13 alcohol	78330-21-9	Not applicable	Not applicable	Not applicable	Not applicable
Oleic acid isopropanolamide	111-05-7	Not applicable	Not applicable	Not applicable	Not applicable

Derived No Effect Level (DNEL) Worker

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.

Engineering Measures

Ensure adequate ventilation, especially in confined areas

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

If engineering controls and work practices cannot keep exposure below occupational exposure limits or if exposure is unknown, wear a NIOSH certified, European Standard EN 149, AS/NZS 1715:2009, or equivalent respirator when using this product. Selection of and instruction on using all personal protective equipment, including respirators, should be performed by an Industrial Hygienist or other qualified professional. Organic vapor respirator.

Hand Protection

Chemical-resistant protective gloves (EN 374) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Nitrile gloves. (>= 0.35 mm thickness)
This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced. Manufacturer's directions for use should be observed because of great diversity of types.

Skin Protection Eye Protection

Normal work coveralls.
Wear safety glasses or goggles to protect against exposure.

Other Precautions	None known.
Skin and Body Protection	Impervious gloves

Environmental Exposure Controls No information available

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical State:	Liquid	Physical State	Liquid
Color:	Off white	Appearance	Off-white
Odor:	Mild hydrocarbon	Odor	Mild, Hydrocarbon-like
Odor Threshold:	No information available		

<u>Property</u>	<u>Values</u>
<u>Remarks/ - Method</u>	
pH	6.5 - 7.5
pH:	-15 °C
Freezing Point/Range	No data available
Melting Point/Range	No data available
Boiling Point/Range	No data available
Flash Point	> 392 °C / PMCC
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	0.002
Vapor Density	No data available
Specific Gravity	1.04
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	75 - 125 mm ² /s
Explosive Properties	No information available
Oxidizing Properties	No information available

9.2. Other information

VOC Content (%)	No data available
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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

None known

10.5. Incompatible Materials

Strong oxidizers. Contact with metals.

10.6. Hazardous Decomposition Products

Oxides of nitrogen. Carbon monoxide and carbon dioxide.

Nitrogen oxides (NO_x) Carbon monoxide (CO) Carbon dioxide (CO₂)

SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity

Inhalation	May cause mild respiratory irritation.
Eye Contact	In vitro tests indicate that the product is not an eye irritant.
Skin Contact	May cause an allergic skin reaction.
Ingestion	May cause mild gastric distress.

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
Hydrotreated light petroleum distillate	64742-47-8	> 5000 mg/kg (Rat) (similar substance)	> 2000 mg/kg (Rabbit) (similar substance)	> 5.28 mg/L (Rat) 4h (similar substance)
Ethoxylated branched C13 alcohol	78330-21-9	1700 mg/kg (Rat) 1650 mg/kg (Dog) 1100 mg/kg (Rat) (similar substance) 2850 mg/kg (Rat)	> 2000 mg/kg (Rabbit) (similar substance)	> saturated concentration (similar substance)
Oleic acid isopropanolamide	111-05-7	> 2000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	No data available

Substances	CAS Number	Skin corrosion/irritation
Hydrotreated light petroleum distillate	64742-47-8	Non-irritating to the skin (similar substances)
Ethoxylated branched C13 alcohol	78330-21-9	Causes moderate skin irritation. (Rabbit) (similar substances)
Oleic acid isopropanolamide	111-05-7	Non-irritating to the skin (Rabbit)

Substances	CAS Number	Eye damage/irritation
Hydrotreated light petroleum distillate	64742-47-8	Non-irritating to rabbit's eye
Ethoxylated branched C13 alcohol	78330-21-9	Causes severe eye irritation which may damage tissue. (Rabbit) (similar substances)
Oleic acid isopropanolamide	111-05-7	Non-irritating to rabbit's eye

Substances	CAS Number	Skin Sensitization
Hydrotreated light petroleum distillate	64742-47-8	Did not cause sensitization on laboratory animals (guinea pig) (similar substances)
Ethoxylated branched C13 alcohol	78330-21-9	Did not cause sensitization on laboratory animals (guinea pig) (similar substances)
Oleic acid isopropanolamide	111-05-7	Skin sensitizer in guinea pig.

Substances	CAS Number	Respiratory Sensitization
Hydrotreated light petroleum distillate	64742-47-8	No information available
Ethoxylated branched C13 alcohol	78330-21-9	No information available
Oleic acid isopropanolamide	111-05-7	No information available

Substances	CAS Number	Mutagenic Effects
Hydrotreated light petroleum distillate	64742-47-8	In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects. (similar substances)
Ethoxylated branched C13 alcohol	78330-21-9	In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects. (similar substances)
Oleic acid isopropanolamide	111-05-7	In vitro tests did not show mutagenic effects

Substances	CAS Number	Carcinogenic Effects
Hydrotreated light petroleum distillate	64742-47-8	Did not show carcinogenic effects in animal experiments
Ethoxylated branched C13 alcohol	78330-21-9	Did not show carcinogenic or teratogenic effects in animal experiments (similar substances)
Oleic acid isopropanolamide	111-05-7	No information available.

Substances	CAS Number	Reproductive toxicity
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Hydrotreated light petroleum distillate	64742-47-8	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments. (similar substances)
Ethoxylated branched C13 alcohol	78330-21-9	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments. (similar substances)
Oleic acid isopropanolamide	111-05-7	Animal testing did not show any effects on fertility.

Substances	CAS Number	STOT - single exposure
Hydrotreated light petroleum distillate	64742-47-8	May cause disorder and damage to the Central Nervous System (CNS) (similar substances)
Ethoxylated branched C13 alcohol	78330-21-9	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
Oleic acid isopropanolamide	111-05-7	No significant toxicity observed in animal studies at concentration requiring classification.

Substances	CAS Number	STOT - repeated exposure
Hydrotreated light petroleum distillate	64742-47-8	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
Ethoxylated branched C13 alcohol	78330-21-9	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
Oleic acid isopropanolamide	111-05-7	No significant toxicity observed in animal studies at concentration requiring classification.

Substances	CAS Number	Aspiration hazard
Hydrotreated light petroleum distillate	64742-47-8	Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.
Ethoxylated branched C13 alcohol	78330-21-9	Not applicable
Oleic acid isopropanolamide	111-05-7	Not applicable

SECTION 12: Ecological Information

12.1. Toxicity Ecotoxicity Effects

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Hydrotreated light petroleum distillate	64742-47-8	EC50 (72h) > 1,000 mg/L (Skeletonema costatum) ErL50 (72h) > 1000 mg/L (Pseudokirchneriella subcapitata) EbL50 (72h) > 1000 mg/L (Pseudokirchneriella subcapitata) NOELR (72h) 1000 mg/L (Pseudokirchneriella subcapitata)	LC50 (96h) > 10,000 mg/L (Scophthalmus maximus) LL50 (96h) > 1000 mg/L (Oncorhynchus mykiss)	No information available	LC50 (48h) > 10,000 mg/L (Acartia tonsa) EC50 (48h) 1100 mg/L (Daphnia pulex) LC50 (48h) 0.12 mg/L (Daphnia magna) EL50 (48h) > 1000 mg/L (Daphnia magna)
Ethoxylated branched C13 alcohol	78330-21-9	EC50 (48h) 2-4 mg/L (Selenastrum capricornutum) (similar substance) ErC50 (72h) 0.282 mg/L (Selenastrum capricornutum) (similar substance) ErC10 0.137 mg/L (Scenedesmus subspicatus) (similar substance)	2.6 mg/L (Brachydanio rerio) (similar substance) LC50 (96h) 1.1 mg/L (Salmo gairdneri) (similar substance) NOEC 0.88 mg/L (reproduction) (Lepomis macrochirus) (similar substance)	No information available	EC50 (48h) 1.2 mg/L (Daphnia magna) (Similar substance) EC50 (48h) 0.6 mg/L (Daphnia magna) (Similar substance) NOEC (21d) 0.77 mg/L (reproduction) (Daphnia magna) (Similar substance)
Oleic acid isopropanolamide	111-05-7	No information available	No information available	No information available	No information available

12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Hydrotreated light petroleum distillate	64742-47-8	Readily biodegradable (40% @ 28d)
Ethoxylated branched C13 alcohol	78330-21-9	Readily biodegradable (85% @ 28d)
Oleic acid isopropanolamide	111-05-7	Readily biodegradable (26% @ 28d)

12.3. Bioaccumulative potential

Substances	CAS Number	Log Pow
Hydrotreated light petroleum distillate	64742-47-8	No information available
Ethoxylated branched C13 alcohol	78330-21-9	5.17
Oleic acid isopropanolamide	111-05-7	No information available

12.4. Mobility in soil

Substances	CAS Number	Mobility
Hydrotreated light petroleum distillate	64742-47-8	No information available
Ethoxylated branched C13 alcohol	78330-21-9	Kd = 3.07 L/kg Kd = 3.09 L/kg
Oleic acid isopropanolamide	111-05-7	No information available

12.5. Results of PBT and vPvB assessment

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

Substances	PBT and vPvB assessment
Hydrotreated light petroleum distillate	Not PBT/vPvB

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 Method**

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:	Not restricted
UN Proper Shipping Name:	Not restricted
Transport Hazard Class(es):	Not applicable
Packing Group:	Not applicable
Environmental Hazards:	Not applicable

RID

UN Number:	Not restricted
UN Proper Shipping Name:	Not restricted
Transport Hazard Class(es):	Not applicable
Packing Group:	Not applicable
Environmental Hazards:	Not applicable

ADR

UN Number:	Not restricted
UN Proper Shipping Name:	Not restricted
Transport Hazard Class(es):	Not applicable
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
14.3. Transport Hazard Class(es):	Not applicable
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

EINECS Inventory	This product, and all its components, complies with EINECS
US TSCA Inventory	All components listed on inventory or are exempt.
Canadian DSL Inventory	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/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

Germany, Water Endangering Classes (WGK) WGK 2: Hazard to waters.

15.2. Chemical Safety Assessment

Yes

SECTION 16: Other Information

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

H302 - Harmful if swallowed
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H318 - Causes serious eye damage
H400 - Very toxic to aquatic life
H412 - Harmful to aquatic life with long lasting effects

Key or legend to abbreviations and acronyms

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%
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/

Revision Date: 23-Oct-2015

Revision Note

Update to Format SECTION: 2 4 11

This safety data sheet complies with the requirements of Regulation (EC) No. 453/2010

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End of Safety Data Sheet