HALLIBURTON

SAFETY DATA SHEET

according to Regulation (EC) No. 453/2010

TUF FIBER 594

Revision Date: 08-Jul-2013 Revision Number: 11

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

Product Name TUF FIBER 594

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

Recommended Use Cement Additive

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

Emergency Phone Number: +44 1224 795277 or +1 281 575 5000

www.halliburton.com

For further information, please contact

E-Mail address: fdunexchem@halliburton.com

1.4 Emergency telephone number

+44 1224 795277 or +1 281 575 5000

Emergency telephone - §	45 - (EC)1272/2008				
Europe	112				
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				
Spain	Poison Information Service (ES): +34 91 562 04 20				
United Kingdom	NHS Direct (UK): +44 0845 46 47				

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Not classified

Classification according to EU Directives 67/548/EEC or 1999/45/EC

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

Classification Not Classified

Risk Phrases None

2.2 Label Elements

Not classified

Hazard Pictograms

Signal Word None

Hazard Statements

Not Classified

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

Not Classified

Contains

SubstancesCAS NumberPolypropylene9003-07-0

2.3 Other Hazards

None known

3. COMPOSITION/INFORMATION ON INGREDIENTS						
Substances EINECS CAS Number PERCENT EEC EU - CLP Substance REACH No. (w/w) Classification Classification						
Polypropylene	Not applicable	9003-07-0	60 - 100%	Not applicable	Not applicable	No data available

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

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.

Ingestion Under normal conditions, first aid procedures are not required.

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

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

Decomposition in fire may produce toxic 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.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use appropriate protective equipment. Avoid creating and breathing dust.

See Section 8 for additional information

6.2 Environmental precautions

None known.

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.

7. HANDLING AND STORAGE

7.1 Precautions for Safe Handling

Avoid creating or inhaling dust.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry location.

7.3 Specific End Use(s)

Exposure Scenario No information available Other Guidelines No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Exposure	Limits

Substances	CAS Number	EU	UK OEL	Netherlands	France OEL
Polypropylene	9003-07-0	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Germany MAK/TRK	Spain	Portugal	Finland
Polypropylene	9003-07-0	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Austria	Ireland	Switzerland	Norway
Polypropylene	9003-07-0	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Italy	Poland	Hungary	Czech Republic
Polypropylene	9003-07-0	Not applicable	Not applicable	Not applicable	TWA: 5.0 mg/m ³

Substances	CAS Number	Denmark
Polypropylene	9003-07-0	Not applicable

Derived No Effect Level (DNEL)

No information available.

Worker

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

Respiratory Protection Not normally necessary.

Hand ProtectionNormal work gloves.Skin ProtectionNormal work coveralls.

Eye Protection Wear safety glasses or goggles to protect against exposure.

Other Precautions None known.

Environmental Exposure Controls No information available

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical State: Solid Color: White

Odor: Odorless Odor Threshold: No information available

<u>Property</u> <u>Values</u>

Remarks/ - Method

pH: No data available Freezing Point/Range No data available Melting Point/Range No data available **Boiling Point/Range** No data available No data available Flash Point **Evaporation rate** No data available **Vapor Pressure** No data available No data available **Vapor Density**

Specific Gravity 0.91

Water Solubility
Insoluble in water
Solubility in other solvents
Partition coefficient: n-octanol/water
Autoignition Temperature
Decomposition Temperature
Viscosity
Insoluble in water
No data available
No data available
No data available
No data available

Explosive PropertiesNo information available **Oxidizing Properties**No information available

9.2 Other information

VOC Content (%) No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

Not applicable

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

None known.

10.6 Hazardous Decomposition Products

Carbon monoxide and carbon dioxide.

11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects

Acute Toxicity

InhalationNone known.Eye ContactNone known.Skin ContactNone known.IngestionNone known

Chronic Effects/CarcinogenicityNo data available to indicate product or components present at greater than 1% are chronic health hazards.

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Polypropylene	9003-07-0	No data available	No data available	No data available

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Ecotoxicity Effects

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Polypropylene	9003-07-0	No information available	No information available	No information available	No information available

12.2 Persistence and degradability

Not readily biodegradable

12.3 Bioaccumulative potential

Does not bioaccumulate

12.4 Mobility in soil

No information available

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Disposal Method Bury in a licensed landfill according to federal, state, and local regulations.

Contaminated Packaging Follow all applicable national or local regulations.

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 hazard: Not applicable

ADR

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

Packing Group: Not applicable Environmental hazard: 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 hazard: Not applicable

Special Precautions for User None

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

15. REGULATORY INFORMATION

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

International Inventories

All of the components in the product are on the following Inventory lists: All of the components in the product are on the

following Inventory lists:.

EINECS Inventory This product, and all its components, complies with EINECS

US TSCA Inventory
All components listed on inventory or are exempt.
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

Classes (WGK)

WGK 0: Generally not water endangering.

15.2 Chemical Safety Assessment

No information available

16. OTHER INFORMATION

Full text of R-phrases referred to under Sections 2 and 3

None

Key literature references and sources for data

www.ChemADVISOR.com/

NZ CCID

Revision Date: 08-Jul-2013

Revision Note Not applicable

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

Disclaimer Statement

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End of Safety Data Sheet