HALLIBURTON

SAFETY DATA SHEET STEELSEAL® 1000

Revision Date: 18-Apr-2014 Revision Number: 8

1. Product and Company Identification

Product Name

Product Trade Name: STEELSEAL® 1000

Other Names

Synonyms: None Product Code: HM006389

Recommended Use

Recommended Use Loss Circulation Material Uses Advised Against No information available

Company Name, Address and Contact Details

Manufacturer/Supplier Halliburton New Zealand

1 Paraite Rd,

Bell Block, New Plymouth

New Zealand Registration No.: 824207

E-Mail address: fdunexchem@halliburton.com

Emergency Telephone Number +64-6-7559274

New Zealand National Poisons

Centre

0800 764 766 (24 hours)

2. Hazard(s) Identification

Statement of Hazardous Nature

Not Classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulation 2001; Not Classified as dangerous good according to NZS 5433:2012, UN, IMDG or IATA

Classification

Non-hazardous

Hazard and Precautionary Statements

Hazard Pictograms

Signal Word None

Hazard Statements Not Hazardous

Precautionary Statements

Prevention None

Response None

Storage None

Disposal None

Contains

| Substances | CAS Number | Substance HSNO Classification |
|-------------------------|------------|-------------------------------|
| Calcined petroleum coke | 64743-05-1 | Not applicable |

2.3 Other Hazards

None known

3. Composition and Information on Ingredients

| Substances | CAS Number | PERCENT (w/w) |
|-------------------------|------------|---------------|
| Calcined petroleum coke | 64743-05-1 | 60 - 100% |

4. First-Aid Measures

Requirements for First Aid or Medical Care

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 Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical

attention. Never give anything by mouth to an unconscious person.

Workplace Facilities Required

None

Relation to Health Effect

Most Important Symptoms/Effects

May cause mild eye, skin, and respiratory irritation.

Medical Attention and Special Treatment

Notes to Physician Treat symptomatically

5. Fire-fighting measures

Type of Hazard

Flammability Hazard

Flammable dust when in finely divided and highly suspended state.

5.1 Extinguishing media

Suitable Extinguishing Media

All standard fire fighting media

Extinguishing media which must not be used for safety reasons

None known.

HAZCHEM Code

Hazchem Code: None Allocated

Special Protective Equipment and Precautions for Fire Fighters

Special Protective Equipment for Fire-Fighters

Not applicable.

Special Exposure Hazards

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

6. Spillage, 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

Handling Precautions

Avoid creating or inhaling dust. Avoid dust accumulations. Wet activated carbon removes oxygen from air causing a severe hazard to workers inside carbon vessels and enclosed or confined spaces. Before entering such an area, sampling and dark procedures for low oxygen levels should be taken to ensure ample oxygen availability.

Handling Practices

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

Approved Handlers

This product does NOT require an approved handler.

7.2 Conditions for safe storage, including any incompatibilities

Store in a dry location. Keep from heat, sparks, and open flames. Store away from oxidizers. Product has a shelf life of 60 months.

Store Site Requirements

No special controls required

Packaging

No special packaging required

8. Exposure Controls and Personal Protection

Workplace Exposure Standards

Exposure Limits

| Substances | CAS Number | New Zealand WES | ACGIH TLV-TWA |
|-------------------------|------------|-----------------|----------------|
| Calcined petroleum coke | 64743-05-1 | Not applicable | Not applicable |

Engineering Controls

Engineering Controls A well ventilated area to control dust levels.

Personal Protective Equipment (PPE)

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.

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.

Skin Protection Normal work coveralls.

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

Other Precautions None known.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical State: Powder Color: Dark gray

Odor: Odorless Odor Threshold: No information available

Property Values

Remarks/ - Method

pH:

Freezing Point/Range

Melting Point/Range

Boiling Point/Range

Boiling Point/Range

Flash Point

Evaporation rate

No data available

4200 °C

> 356 °C

Vapor Pressure

No data available

1 mmHq

Vapor Pressure1 mrVapor Density0.4Specific Gravity1.5

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

9.2 Other information

VOC Content (%) No data available

10. Stability and Reactivity

10.2 Chemical Stability

Stable

10.4 Conditions to Avoid

None anticipated

10.5 Incompatible Materials

Strong acids. Strong alkalis.

10.6 Hazardous Decomposition Products

Carbon monoxide and carbon dioxide.

Hazardous Reactions

Hazardous Polymerization: Will Not Occur

11. Toxicological Information

Health Effect from Likely Routes of Exposure

Acute Toxicity

InhalationMay cause mild respiratory irritation.Eye ContactMay cause mild eye irritation.

Skin Contact Prolonged or repeated contact may cause slight skin irritation.

Ingestion May cause mild gastric distress.

Chronic Effects/Carcinogenicity Prolonged, excessive exposure to dust may cause pneumoconiosis, a lung disease

caused by inhaling dust particles less than 0.5 micrometers into the lungs.

Toxicity Data

Toxicology data for the components

| Substances | CAS Number | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|-------------------------|------------|-------------------|-------------------|-------------------|
| Calcined petroleum coke | 64743-05-1 | No data available | No data available | No data available |

12. Ecological Information

12.1 Toxicity

Ecotoxicity Effects

Product Ecotoxicity Data

No data available

Substance Ecotoxicity Data

| Substance Ecoloxici | ., | | | | |
|-------------------------|------------|--|---|--------------------------|---|
| Substances | CAS Number | Toxicity to Algae | Toxicity to Fish | Toxicity to | Toxicity to |
| | | | | Microorganisms | Invertebrates |
| Calcined petroleum coke | 64743-05-1 | ErL50(96h): > 1000 mg/L (Selenastrum capricornutum) NOELR(96h): > 1000 mg/L (Selenastrum capricornutum) | LL50(96h): > 1000 mg/L (Pimephales promelas) | No information available | EL50(48h): > 1000 mg/L (Daphnia magna) |

12.2 Persistence and degradability

The methods for determining biodegradability are not applicable to inorganic substances.

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|--|-------------------------|--|--|
| Substances | | Persistence and Degradability | |
| | Calcined petroleum coke | The methods for determining biodegradability are not applicable to | |
| | | inorganic substances. | |

12.3 Bioaccumulative potential

Does not bioaccumulate

12.4 Mobility in soil

No information available

Ecotoxicity Hazard Statements

None known

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

NZ 5433.1999

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

IATA/ICAO

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

New Zealand Inventory of

Chemicals

All components listed on inventory or are exempt.

HSNO Approval Number Non-hazardous

Not Applicable

Group Name

HSNO Controls Refer to the NZ EPA website for more information: http://www.epa.govt.nz

Approved Handlers Not Applicable

Poisons Schedule: None Allocated

16. Other information, including date of preparation or last revision

The following sections have been revised since the last issue of this SDS

Not applicable

Additional information For additional information on the use of this product, contact your local Halliburton

representative.

For questions about the Safety Data Sheet for this or other Halliburton products, contact

Chemical Compliance at 1-580-251-4335.

Key literature references and sources for data

www.ChemADVISOR.com/

NZ CCID

Revision Date: 18-Apr-2014

Revision Note Not applicable

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End of Safety Data Sheet