

PRODUCT NAME: **EXOWELD™ LOW DENSITY BACKFILL**  
SDS DOCUMENT NUMBER: **EXO-QM-QD-SDS-LDB**

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## 1 - IDENTIFICATION OF THE SUBSTANCE AND THE COMPANY

### PRODUCT IDENTIFIER

**Product Name:** Exoweld™ Low Density Backfill  
**Other Names:** Conductive Earthing Compound, Coke Breeze, Coke  
**Product Description:** Dark brown / black granules

### RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

**Application:** Conductive Earthing Compound

### DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

**Manufacturer:** Exoweld (Pty) Ltd  
416 Heidelberg Road, Tulisa Park, Johannesburg 2197  
Republic of South Africa  
Tel: +27 (0) 11 907 1355

**Emergency Telephone:** Bruno Tranchina | Exoweld Director  
083 263 6004 South Africa  
+27 (0) 83 263 6004 International



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## 2 - HAZARDS IDENTIFICATION

### CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

**Classifications:** Combustible Dust

### LABEL ELEMENTS (PICTOGRAMS)

None required

**Signal word:** WARNING

### HAZARD STATEMENTS

**H001:** May form combustible dust concentrations in air.

**H002:** Excessive exposure may cause skin, eye or respiratory tract irritation.

### PRECAUTIONARY STATEMENTS

**Prevention:**

- Avoid accumulations of finely ground dust.
- Keep away from flames and hot surfaces. No smoking.
- Wear gloves, eye protection and face protection as needed to prevent skin and eye contact with liquid.
- Wash hands or liquid-contacted skin thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Do not breathe dust.
- Use only outdoors or in a well-ventilated area.

**Response:**

- In case of fire: Use dry chemical, CO<sub>2</sub>, water spray or fire fighting foam to extinguish.
- If on skin (or hair): Rinse skin with water or shower. Remove and wash contaminated clothing.
- If in eye: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- If inhaled: Remove person to fresh air and keep comfortable for breathing.
- Immediately call or doctor or emergency medical provider.
- If skin, eye or respiratory system irritation persists, get medical attention

**Storage:**

- Avoid generating heavy concentrations of airborne, finely-ground backfill dust.
- Avoid accumulations of finely ground dust on surfaces of equipment or buildings.

**Disposal:** Dispose of contents/containers to approved disposal site in accordance with local, regional, or national regulations.



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**3 - COMPOSITION / INFORMATION ON INGREDIENTS****MIXTURES**

Chemical name	CAS No.	%
Carbon	7440-44-0	80-86
Sulphur	7704-34-9	0.6-0.8
Ash	NA	17-18
Volatiles	NA	1-2
Water	7732-18-5	2-3

Other: The full text for all hazard statements is displayed in [Section 15](#).**4 - FIRST AID MEASURES****DESCRIPTION OF FIRST AID MEASURES**

- Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so. Seek medical attention immediately.
- Skin Contact:** Take off all contaminated clothing immediately. Wash off with soap and plenty of water. Wash contaminated clothing before re-use. Seek medical advice if symptoms persist or develop.
- Eye Contact:** Remove contact lenses. Immediately flush eyes thoroughly with warm water for at least 15 minutes. Hold the eyelids open and away from the eyeballs to ensure that all surfaces are flushed thoroughly. Seek medical advice.
- Ingestion:** Ingestion is considered unlikely. However, inhalation procedures should be followed if this happens. Drink 1 or 2 glasses of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Obtain medical attention.
- Notes to physician:** Symptoms: Vomiting, Diarrhea, Pain.

Other: See information on toxicological effects in [Section 11](#).

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## 5 - FIREFIGHTING MEASURES

### SPECIFIC HAZARDS

**Hazards:** Product will burn. In very large quantities, spontaneous heating and combustion may occur. Fire will produce dense black smoke containing hazardous combustion products.

### EXTINGUISHING MEDIA

**Extinguishing Media:** Water spray, Dry chemical, Foam, Carbon dioxide blanket, A solid stream of water may scatter and spread the fire.

### ADVICE FOR FIREFIGHTERS

**Protective Equipment:** Firefighting activities that may result in potential exposure to high heat, smoke or toxic by-products of combustion should require NIOSH/MSHA- approved pressure-demand self-contained breathing apparatus with full face piece and full protective clothing.

**Procedures:** Large fires are best extinguished with water. Surfactant (foam or soap) in water may be effective in reaching deep, smouldering fires (such as in coke pile).

## 6 - ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

**Personal Precautions:** ACTIVATE FACILITY'S SPILL CONTINGENCY OR EMERGENCY RESPONSE PLAN if applicable. Ventilate the area. Evacuate personnel to safe areas.

### ENVIRONMENTAL PRECAUTIONS

**Environmental Precautions:** Prevent further leakage or spillage. Should not be released into the environment. Do not allow material to contaminate ground water system. In case of accident or road spill notify Exoweld (Pty) Ltd.

### METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

**Spill Clean-up Methods:** Carefully vacuum, shovel, scoop or sweep up into a waste container for reclamation or disposal. Water fog may be necessary to minimize dust generation. Respiratory protection is recommended where visible dust may be generated.

### REFERENCE TO OTHER SECTIONS

**Other:** For personal protection, see [Section 8](#).  
For waste disposal, see [Section 13](#).



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## 7 - HANDLING AND STORAGE

### PRECAUTIONS FOR SAFE HANDLING

**Safe Handling Advice:** Minimize physical contact with the product. Avoid conditions which create dust. Do not breathe vapours or dust. Avoid dispersal of coke dust into air such as cleaning dusty surfaces with compressed air.

**Technical Measures:** Keep away from heat and sources of ignition. No smoking near areas where material is stored or used. Ground and bond containers during product transfers to reduce the possibility of static-initiated fire or explosion.

**Dust explosion class:** High concentrations of airborne petroleum coke dusts may be ignited by contact with heated surface. Airborne coke dust is primarily a fire hazard, but explosion may be possible.

### CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

**Safe Storage Advice:** Avoid generation and accumulation of dust when handling this material. Refer to NFPA 654 Standard for Prevention of Fire & Dust Explosions.



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## 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

List	Components	CAS-No.	Type	Value
ACGH (TLV)	Carbon	7440-44-0	TWA	3.5 mg/m <sup>3</sup>
ACGH (TLV)	Sulphur	7704-34-9	TWA Inhalable TWA Respirable	10 mg/m <sup>3</sup> 3 mg/m <sup>3</sup>
ACGH (TLV)	Ash	NA	TWA Inhalable TWA Respirable	10 mg/m <sup>3</sup> 3 mg/m <sup>3</sup>
ACGH (TLV)	Volatiles	NA	Not Available	Not Available
ACGH (TLV)	Water	7732-18-5	NA	NA

### EXPOSURE CONTROLS

#### General Measures:

Use adequate ventilation to keep dust concentrations of this product below occupational exposure limits. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Dust control equipment such as local exhaust ventilation or material transport systems handling coke should contain explosion relief vents or explosion suppression systems.

#### Respiratory equipment:

A NIOSH/ MSHA-approved air-purifying respirator with particulate classification N-95 or greater filter cartridges or canister may be permissible under certain circumstances where airborne concentrations are or may be expected to exceed exposure limits or for odour or irritation. Protection provided by air-purifying respirators is limited. Refer to OSHA 29 CFR 1910.134, ANSI Z88.2-1992, NIOSH Respirator Decision Logic, and the manufacturer for additional guidance on respiratory protection selection. Use a NIOSH/ MSHA-approved positive-pressure supplied-air respirator if there is a potential for uncontrolled release, exposure levels are not known, in oxygen-deficient atmospheres, or any other circumstance where an air-purifying respirator may not provide adequate protection.

#### Hand protection:

Work gloves are recommended if needed to prevent repeated or prolonged skin contact.

#### Eye protection:

Indirect vented, dust-tight goggles are recommended if dust is generated when handling this product.

#### Skin protection:

Disposable clothing such as Tyvek<sup>®</sup> (DuPont) may be warranted to minimize skin and clothing contamination, depending on the work to be performed. Flame resistant clothing such as Nomex<sup>®</sup> is recommended in areas where material is stored or handled.

#### Hygiene measures:

Use good personal hygiene practices. Avoid repeated and/or prolonged skin exposure. Wash hands before eating, drinking, smoking, or using toilet facilities.



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When using do not eat, drink or smoke. Promptly remove contaminated clothing and launder before reuse.

## 9 - PHYSICAL AND CHEMICAL PROPERTIES

### INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Dark brown to black solid lumps
<b>Colour:</b>	Dark brown to black
<b>Odour:</b>	Asphalt – like odour
<b>Odour threshold:</b>	Not determined
<b>pH:</b>	Not determined
<b>Melting point / freezing point:</b>	Not determined
<b>Boiling point:</b>	Not determined
<b>Flash point:</b>	Not determined
<b>Evaporation point:</b>	Not determined
<b>Flammability (solid, gas):</b>	Solid
<b>Upper flammable limit</b>	Not determined
<b>Lower flammable limit</b>	Not determined
<b>Vapour pressure:</b>	Not applicable
<b>Vapour density (air=1):</b>	No data available
<b>Relative density (water=1)</b>	1.75
<b>Solubility (in water):</b>	Insoluble
<b>Partition coefficient (n-octanol / water):</b>	No data available
<b>Auto-ignition temperature:</b>	Not applicable
<b>Kinematic viscosity:</b>	Not applicable



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## 10 - STABILITY AND REACTIVITY

### CHEMICAL STABILITY

**Reactivity:** Airborne dust may become flammable or explosive.

**Stability:** Stable under normal conditions.

### POSSIBILITY OF HAZARDOUS REACTIONS

**Hazardous Reactions:** Keep away from oxidizing agents, and acidic or alkaline products.

### CONDITIONS TO AVOID

**Conditions / materials to avoid:** Avoid accumulation of finely ground dust. Minimize generation of airborne dust.

### HAZARDOUS DECOMPOSITION PRODUCTS

**Hazardous decomposition products:** In case of fire, hazardous decomposition products may be produced such as carbon monoxide, carbon dioxide, hydrocarbons and smoke. No decomposition if stored and applied as directed.

## 11 - TOXICOLOGICAL INFORMATION

### INFORMATION ON TOXICOLOGICAL EFFECTS

**Inhalation:** Inhalation of excessive dust concentrations may be irritating to the upper respiratory system. Repeated chronic inhalation exposure may cause impaired lung function. There is no evidence that such exposures cause pneumoconiosis, carcinogenicity, or other chronic health effects.

**Ingestion:** Low order of oral toxicity. Ingestion is considered unlikely. However, good personal hygiene such as washing hands and face after handling or contacting material before eating, drinking or smoking should be practiced to minimize ingestion of this product.

**Skin contact:** Contact may cause skin irritation.

**Eye contact:** May cause irritation, experienced as mild discomfort and seen as slight excess redness of the eye.

**Specific effects:** Repeated inhalation of the petroleum coke dust (10.2 and 30.7 mg/m<sup>3</sup>) over a two year period resulted in lung damage typical of high dust exposure including inflammation and scarring in rats. Similar exposures in monkeys did not produce similar lung effects. There was no observation of a carcinogenic effect at any dose following a lifetime exposure. There is no evidence of pneumoconiosis or carcinogenicity in human health studies. 24 months of exposure in monkeys and rats to either 10.2 or 30.7 mg/m<sup>3</sup> of coke dust resulted in lung accumulation of dust. There was no associated tissue abnormality in monkeys. A low level





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inflammatory response developed in the rat lung at 10.2 mg/m<sup>3</sup> and more significant inflammatory changes occurred in the rat lung at 30.7 mg/m<sup>3</sup>. There was no evidence of carcinogenicity in either species. Mouse skin painting bioassay negative.

**Acute oral toxicity:** LD50 rat  
Dose: > 2,000 mg/kg  
The toxicological data has been taken from products of similar composition.

**Acute dermal toxicity:** LD50 rabbit  
Dose: > 2,000 mg/kg  
The toxicological data has been taken from products of similar composition.

**Acute inhalation toxicity:** No data available.

## CARCINOGENICITY

**NTP:** No component of this product which is present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**IARC:** No component of this product which is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA:** No component of this product which is present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**CA Prop 65:** This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.

## 12 - ECOLOGICAL INFORMATION

Keep out of sewers, drainage areas, and waterways. Report spills and releases, as applicable, under Federal and State regulations.

## 13 - DISPOSAL CONSIDERATIONS

Dispose of container and unused contents in accordance with federal, state and local requirements. Product is suitable for burning for fuel value in compliance with applicable laws and regulations.

RCRA: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity, or reactivity.

The unused product is not formulated with substances covered by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.



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## 14 - TRANSPORT INFORMATION

### LOCAL / INTERNATIONAL TRANSPORT REGULATIONS

Not regulated by USA dot 49 CFR

No other regulations apply



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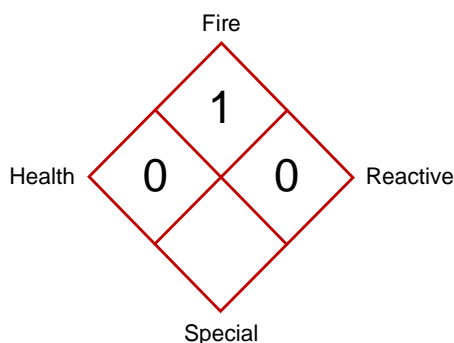
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## 15 - REGULATORY INFORMATION

### HAZARD SYMBOL(S)

NFPA	Hazard rating
0	Insignificant
1	Slight
2	Moderate
3	High
4	Extreme



### SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

#### Local Regulations:

Any spill or uncontrolled release of this product, including any substantial threat of release, may be subject to federal, state and/local reporting requirements. This product and/or its constituents may also be subject to other regulations at the state and/or local level. Consult those regulations applicable to your facility/operation.

#### Foreign Regulations:

On TSCA Inventory.

All components of this product are on the Canadian DSL list.

No SARA Hazards.

## 16 - OTHER INFORMATION

The information on this data sheet represents the most current data available to Exoweld (Pty) Ltd. All information is adequate to offer protection for all normal use as well as use of properly stored product, by properly trained personnel.

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