HALLIBURTON

SAFETY DATA SHEET

according to Regulation (EC) No. 453/2010

CARBONOX® MALVERN-GRADE

Revision Date: 04-Jan-2011 Revision Number: 8

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

Product Identifier

Product Name CARBONOX® MALVERN-GRADE

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

Recommended Use Fluid Loss Additive

Uses Advised Against No information available

Details of the supplier of the safety data sheet

Halliburton Manufacturing Services, Ltd. Halliburton House, Howemoss Crescent

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Emergency telephone number

+44 1224 795277 or +1 281 575 5000

Emergency telephone §45	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

Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Carcinogenicity	Category 1A - (H350)
Specific Target Organ Toxicity - (Repeated Exposure)	Category 1 - (H372)

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

2. HAZARDS IDENTIFICATION

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

Crystalline silica is not classified as a carcinogen in EU Council Directives

67/548/EEC and 88/379/EEC.

Risk Phrases None

Label Elements

Hazard Pictograms



Signal Word Danger

Hazard Statements

H372 - Causes damage to organs through prolonged or repeated exposure

H350i - May cause cancer by inhalation

Contains

SubstancesCAS NumberCoalProprietaryCrystalline silica, quartz14808-60-7

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

P201 - Obtain special instructions before use

P308 + P313 - IF exposed or concerned: Get medical advice/attention

Other Hazards

Dust can form an explosive mixture in air

3. COMPOSITION/INFORMATION ON INGREDIENTS						
Substances	EINECS	CAS Number	PERCENT	EEC Classification	EU - CLP Substance Classification	REACH No.
Coal	Not Listed	Proprietary	60 - 100%	Not applicable	Not applicable	No data available
Crystalline silica, quartz	238-878-4	14808-60-7	2-6	Not applicable	Carc. 1A (H350i) STOT RE 1 (H372)	No data available

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

4. FIRST AID MEASURES

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.

CARBONOX® MALVERN-GRADE

4. FIRST AID MEASURES

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.

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Most Important symptoms and effects, both acute and delayed

May cause eye irritation.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically

5. FIREFIGHTING MEASURES

Extinguishing mediaó

Suitable Extinguishing Media

Water fog, carbon dioxide, foam, dry chemical.

Extinguishing media which must not be used for safety reasons

None known.

Special hazards arising from the substance of mixture

Special Exposure Hazards

Decomposition in fire may produce toxic gases. Flammable dust when in finely divided and highly suspended state.

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

Personal precautions, protective equipment and emergency procedures

Use appropriate protective equipment. Avoid creating and breathing dust.

See Section 12 for additional information

Environmental precautions

None known.

Methods and material for containment and cleaning up

Collect using dustless method and hold for appropriate disposal. Consider possible toxic or fire hazards associated with contaminating substances and use appropriate methods for collection, storage and disposal.

Reference to other sections

See Section 12 for additional information.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Avoid contact with eyes, skin, or clothing. Avoid creating or inhaling dust. This product contains quartz, cristobalite, and/or tridymite which may become airborne without a visible cloud. Avoid breathing dust. Avoid creating dusty conditions. Use only with adequate ventilation to keep exposure below recommended exposure limits. Wear a NIOSH certified, European Standard En 149, or equivalent respirator when using this product. Material is slippery when wet.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

Conditions for safe storage, including any incompatibilities

Store in a dry location. Use good housekeeping in storage and work areas to prevent accumulation of dust. Close container when not in use. Do not reuse empty container. Product has a shelf life of 60 months.

Specific End Use(s)

No information available **Exposure Scenario Other Guidelines** No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Substances EU	UK OEL	Netherlands	France OEL	Germany MAK/TRK
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8. EXPOSURE CONTROLS/PERSONAL PROTECTION					
Coal	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Crystalline silica, quartz	Not applicable	0.1 mg/m ³	0,075 mg/m ³	0.1 mg/m ³	0,15 mg/m ³

Substances	Italy	Poland	Hungary	Czech Republic	Denmark
Coal	Not applicable	Not applicable	Not applicable	10.0 mg/m ³	Not applicable
Crystalline silica, quartz	Not applicable	2 mg/m ³	0.15 mg/m ³	Not applicable	Not applicable

Derived No Effect Level (DNEL)
Predicted No Effect Concentration

No information available. No information available.

(PNEC)

Exposure controls

Engineering Controls A well ventilated area to control dust levels. Use approved industrial ventilation and local

exhaust as required to maintain exposures below applicable exposure limits listed in Section

2.

Personal protective equipment

Respiratory Protection Wear a NIOSH certified, European Standard EN 149 (FFP2/FFP3), or equivalent respirator

when using this product.

Hand Protection Normal work gloves.

Skin Protection Wear clothing appropriate for the work environment. Dusty clothing should be laundered

before reuse. Use precautionary measures to avoid creating dust when removing or

laundering clothing.

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

Information on basic physical and chemical properties

Physical State: Solid Color: Black

Odor: Odorless Odor Threshold: No information available

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

Remarks/ Method

pH:No data availableMelting Point/RangeNo data availableFreezing Point/Range (C):No data availableBoiling Point/RangeNo data availableFlash PointNo data availableEvaporation rateNo data availableVapor PressureNo data availableVapor DensityNo data available

Specific Gravity 1.7

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

Other information

VOC Content (%) No data available

10. STABILITY AND REACTIVITY

Reactivity
Not applicable
Chemical Stability

10. STABILITY AND REACTIVITY

Stable

Possibility of Hazardous Reactions

May Occur

Conditions to Avoid

None anticipated

Incompatible Materials

Strong alkalis.

Hazardous Decomposition Products

Oxides of nitrogen. Carbon monoxide and carbon dioxide. Amorphous silica may transform at elevated temperatures to tridymite (870 C) or cristobalite (1470 C).

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Acute Toxicity

Inhalation

Inhaled crystalline silica in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (IARC, Group 1). There is sufficient evidence in experimental animals for the carcinogenicity of tridymite (IARC, Group 2A).

Breathing silica dust may cause irritation of the nose, throat, and respiratory passages. Breathing silica dust may not cause noticeable injury or illness even though permanent lung damage may be occurring. Inhalation of dust may also have serious chronic health effects (See "Chronic Effects/Carcinogenicity" subsection below).

Eye Contact Skin Contact Ingestion

May cause eye irritation. May cause mild skin irritation.

Irritation of the mouth, throat, and stomach.

Chronic Effects/Carcinogenicity Silicosis: Excessive inhalation of respirable crystalline silica dust may cause a progressive, disabling, and sometimes-fatal lung disease called silicosis. Symptoms include cough, shortness of breath, wheezing, non-specific chest illness, and reduced pulmonary function. This disease is exacerbated by smoking. Individuals with silicosis are predisposed to develop tuberculosis.

> Cancer Status: The International Agency for Research on Cancer (IARC) has determined that crystalline silica inhaled in the form of quartz or cristobalite from occupational sources can cause lung cancer in humans (Group 1 - carcinogenic to humans) and has determined that there is sufficient evidence in experimental animals for the carcinogenicity of tridymite (Group 2A - possible carcinogen to humans). Refer to IARC Monograph 68, Silica, Some Silicates and Organic Fibres (June 1997) in conjunction with the use of these minerals. The National Toxicology Program classifies respirable crystalline silica as "Known to be a human carcinogen". Refer to the 9th Report on Carcinogens (2000). The American Conference of Governmental Industrial Hygienists (ACGIH) classifies crystalline silica, quartz, as a suspected human carcinogen (A2).

> There is some evidence that breathing respirable crystalline silica or the disease silicosis is associated with an increased incidence of significant disease endpoints such as scleroderma (an immune system disorder manifested by scarring of the lungs, skin, and other internal organs) and kidney disease.

Substances	LD50 Oral	LD50 Dermal	LC50 Inhalation
Coal	No data available	No data available	No data available
Crystalline silica, quartz	No data available	No data available	No data available

12. ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity Effects

Substances	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water
				Flea)
Coal	No information available	No information available	No information available	M96: > 1000 ppm (Crangon crangon)
				crangon)
Crystalline silica, quartz	No information available	No information available	No information available	No information available

Persistence and degradability

No information available

Bioaccumulative potential

No information available

Mobility in soil

No information available

Results of PBT and vPvB assessment

No information available.

Other adverse effects

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

13. DISPOSAL CONSIDERATIONS

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

RID

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

ADR

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

IATA/ICAO

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

Special Precautions for User None

14. TRANSPORT INFORMATION

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

15. REGULATORY INFORMATION

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

All components listed on inventory or are exempt. **US TSCA Inventory 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/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

Germany, Water Endangering

Classes (WGK)

WGK 0: Generally not water endangering.

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/

Revision Date: 04-Jan-2011 **Revision Note** Not applicable

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer Statement

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End of Safety Data Sheet