# Jacobs

111 Corning Road, Suite 200 Cary, North Carolina 27518 United States T +1.919.859.5001 www.jacobs.com

November 6, 2020

Delivery via Email and FedEx Overnight Delivery

Mr. Jeffery E. Mendenhall South Carolina Department of Health and Environmental Control Assessment Section, UST Management Division Bureau of Land and Waste Management 2600 Bull Street Columbia, South Carolina 29201

Subject: Completion Report for Recovery Trench Removal/Replacement and Improvements along Browns Creek Hill Slope Plantation Pipe Line Company Lewis Drive Remediation Site Belton, South Carolina Site ID #18693, "Kinder Morgan Belton Pipeline Release"

Dear Mr. Mendenhall,

This correspondence is being submitted on behalf of Plantation Pipe Line Company (Plantation) to provide documentation of the subject work activities. This action is in response to the request made in a letter from South Carolina Department of Health and Environmental Control (DHEC) titled, *Response to Proposal to Remove Recovery Trench and Implement Improvements Along Browns Creek Hill Slope*, date stamped August 18, 2020.

The following work activities were conducted from September 8 to 12 and September 21 to 25, 2020, by L.E. Bell (Plantation subcontractor) of Heflin, Alabama, in accordance with the *Proposal to Remove Recovery Trench and Implement Improvements along Browns Creek Hill Slope*, submitted July 23, 2020, and approved by DHEC on August 18, 2020. Photographs of the work activities are provided in the photolog included as Attachment A.

## Work Conducted

- The Browns Creek recovery trench was excavated and backfilled with clean sand mixed with granular activated carbon (GAC)
  - Excavated trench material consisted of gravel, soil, and 12 PVC recovery trench points (RT2-1A through RT2-L) and was characterized, placed in roll offs and also direct loaded in dump trucks, and hauled offsite for disposal at a permitted facility
  - Backfill consisted of clean sand mixed with approximately 30% GAC (Norit GAC 830R). A safety data sheet for the GAC is provided as Attachment B. Source of sand was the sand pit from Hare Run Sand Co., SCDHEC Permit I-001406.



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- Trench excavation dimensions were approximately 150 feet long, by 5 feet wide, by 5 feet deep and 31,000 lbs. of GAC was placed in the excavation.
- The rotted wood mats, used to install the trench during emergency response activities back in 2015, and numerous tree stumps and woody debris on the hillslope above the trench, were removed using a track hoe and placed in roll offs and hauled offsite for disposal at a permitted facility
- The hillslope was re-graded to improve site aesthetics and stormwater drainage, and all disturbed areas were seeded and strawed to promote revegetation and prevent erosion in accordance with the current stormwater management plan.

### **Deviations from Work Plan**

- The conveyance line to the stream aerators was discovered to cross the path of recovery trench. L.E. Bell exposed the line and excavated this portion of the trench using hand tools to avoid damaging the line.
- Excavation dimensions of the trench were 150 feet long x 5 wide x 5 feet deep, slightly larger than the original estimated dimensions of 150 feet x 5 feet wide x 4 feet deep. The trench length was measured at 150 feet on site using a measuring wheel. The 210 feet long, by 5 feet wide, by 4 feet deep dimensions included in proposal letter to DHEC cited earlier, originated from map measuring software.
- Percentage of GAC in trench excavation backfill varied slightly from target of 30% GAC. The estimated actual GAC percentage of the backfill is 28%, due to a slightly larger excavation volume.

The primary objective of these improvements was to remove site features that no longer served their intended purpose and to improve the aesthetics and safety of the site. Additional benefits included the installation of a remediation feature (trench backfill containing GAC), improved drainage pathways (removal of depressed spots causing infiltration and regrading to reduce energy and erosion), and reduced maintenance (easier to mow and better access to monitoring features). The objectives were achieved. Please let us know if you have any questions or concerns about these improvements.

Regards,

Millen Waldre

William M. Waldron Program Manager



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Copies:Greg Dempsey, Plantation (Digital, <u>greg\_dempsey@kindermorgan.com</u>)Mary Clair Lyons, Esq., Plantation (Digital, <u>Mary\_Lyons@kindermorgan.com</u>)Richard Morton, Esq., Womble Bond Dickinson, LLP (Digital, <u>ric.morton@wbd-us.com</u>)

Attachments:

Attachment A: Photolog Attachment B: Norit GAC 830R Safety Data Sheet

Attachment A Photolog



# Jacobs

Project Title	Browns Creek Recovery Trench Removal and Hillslope Improvements
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Location Lewis Drive, Belton, South Carolina

Date November 6, 2020

# **Before Site Work**



Photograph 1: Hillside looking southeast towards Browns Creek with recovery wells (RW-8 and RW-9).



Photograph 2: Hillside above Browns Creek looking south towards lower rotted timber mats.



Photograph 3: South end of recovery trench with recovery trench points (RT-2A, -2B, and -2C).

# Site Work



Photograph 4: Excavating south end of trench.



Photograph 5: Trench excavation with recovery point.



Photograph 6: Mixing sand and carbon at stockpile area.



Photograph 7: Backfilling with sand and carbon mix.



Photograph 8: Compacting backfill with excavator.



Photograph 9: Covering south end of backfilled trench.

# Site Restoration



Photograph 10: Looking southeast with recovery well RW-14.



Photograph 11: Looking southeast with recovery well RW-14. Timber mats were formerly located to the right of RW-14.



Photograph 12: Looking west up hillside with recovery wells RW-6 and RW-7.



Photograph 13: Top of hillside looking southeast with recovery wells RW-7 and RW-8.



Photograph 14: Removed timber mats and woody debris staged at stockpile area at top of hillside. Recovery well RW-5 in foreground. Attachment B Norit GAC 830R Safety Data Sheet



SAFETY DATA SHEET

Prepared in accordance with the United States Hazard Communication Revision date: 13-May-2015 Standard: 29 CFR 1910.1200 (2012)

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name:	NORIT® GAC 830
Product code:	830
Synonyms:	Activated carbon
Recommended use:	Liquid and vapor applications (purification, decolorization, separation, catalyst and deodorization)
Restrictions on use:	No information available.
Supplier:	
	Cabot Corporation 157 Concord Road Billerica, MA 01821 UNITED STATES Tel: 1-978-663-3455 Fax: 1-978-670-6955
Emergency Telephone Number:	US: CHEMTREC 1-800-424-9300 or 1-703-527-3887 International CHEMTREC: +1 703-741-5970 or +1-703-527-3887
Emergency Telephone Number:	
Emergency Telephone Number:	International CHEMTREC: +1 703-741-5970 or +1-703-527-3887
	International CHEMTREC: +1 703-741-5970 or +1-703-527-3887
<u>Classification</u>	International CHEMTREC: +1 703-741-5970 or +1-703-527-3887 2. HAZARDS IDENTIFICATION This chemical is not considered hazardous by the United States 2012 OSHA Hazard
<u>Classification</u> OSHA Regulatory Status:	International CHEMTREC: +1 703-741-5970 or +1-703-527-3887 2. HAZARDS IDENTIFICATION This chemical is not considered hazardous by the United States 2012 OSHA Hazard

#### Hazards not otherwise classified (HNOC)

Odorless black granules or powder. Avoid contact with skin and eyes. Avoid breathing dust. Activated carbon (especially when wet) can deplete oxygen from air in enclosed spaces, and dangerously low levels of oxygen may result. Prior to entering a confined space that contains or previously contained activated carbon, the space should be evaluated for oxygen and carbon monoxide concentrations, and any other hazards, by a qualified person.

Workers should also take appropriate precautions when dealing with spent (used) activated carbons which may exhibit hazardous properties associated with the adsorbed materials.

Avoid dust formation. Powdered material may form an explosible dust-air mixture. If transferring product under pressure, avoid generation of dust if an ignition source is present.

Activated carbons have high surface area which may cause self-heating during oxidation. See Section 5.

Do not generate dust because airborne respirable crystalline silica may be generated.

#### Potential health effects

Principle Routes of Exposure:	Inhalation, Eye contact, Skin Contact
Eye Contact:	May cause mechanical irritation. Avoid contact with eyes.
Skin Contact:	May cause mechanical irritation. Avoid contact with skin.
Inhalation:	Dust may be irritating to respiratory tract. Provide appropriate local exhaust ventilation at machinery and at places where dust can be generated. See also Section 8.
Ingestion:	Adverse health effects are not known or expected under normal use.
Carcinogenicity:	See Section 11.
Target Organ Effects:	Lungs, Eyes, Skin
Medical Conditions Aggravated by Exposure:	Asthma, Respiratory disorder, Skin disorders
Potential Environmental Effects:	No special environmental precautions required. See also Section 12.

#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Synonyms: Activated carbon.

Chemical name	CAS No	weight-%	Trade secret
Activated Carbon	7440-44-0	100	

This product, which is manufactured from a naturally occurring raw material(s), contains <10% total crystalline silica (quartz, CASRN 14808-60-7).

4. FIRST	AID	MEASL	IRES
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FIRST AID MEASURES		
Skin Contact	Wash thoroughly with soap and water. Seek medical attention if symptoms develop.	
Eye contact	Flush eyes immediately with large amounts of water for 15 minutes. Seek medical attention if symptoms develop.	
Inhalation	If cough, shortness of breath or other breathing problems occur, move to fresh air. Seek medical attention if symptoms persist. If necessary, restore normal breathing through standard first aid measures.	
Ingestion	Do not induce vomiting. If conscious, give several glasses of water. Never give anything by mouth to an unconscious person.	
Most important symptoms and effe	ects, both acute and delayed	
Symptoms:	The most important known symptoms and effects are described in Section 2 and/or in Section 11.	
Indication of any immediate medic	al attention and special treatment needed	
Note to physicians:	Treat symptomatically.	
	5. FIRE-FIGHTING MEASURES	
Suitable Extinguishing Media:	Use foam, carbon dioxide (CO2), dry chemical or water spray. A fog is recommended if water is used.	
Unsuitable Extinguishing Media:	DO NOT USE a solid water stream as it may scatter and spread fire. In the event of a fire, spreading large amounts of activated carbon is not recommended due to the risk of creating uncontrolled dust emissions.	
Specific hazards arising from the chemical:	Burning produces irritant fumes. If transferring product under pressure, avoid generation of dust if an ignition source is present.	
	Activated carbons have high surface area which may cause self-heating during oxidation. An adequate air gap between packages of activated carbon is recommended to reduce risk of propagation of the event. Activated carbon is difficult to ignite and tends to burn slowly (smolder) without producing smoke or flame.	
Hazardous combustion products:	Used activated carbon may produce additional combustion products which are based on the substance(s) adsorbed. Materials allowed to smolder for long periods in enclosed spaces may produce amounts of carbon monoxide which reach the lower explosive limit (carbon monoxide LEL = 12.5% in air). Carbon monoxide (CO). Carbon dioxide (CO2).	
Hazardous combustion products: Protective equipment and precautions for firefighters:	Used activated carbon may produce additional combustion products which are based on the substance(s) adsorbed. Materials allowed to smolder for long periods in enclosed spaces may produce amounts of carbon monoxide which reach the lower explosive limit	

Personal precautions, protective equipment and emergency procedures

Personal precautions: Avoid dust formation. Ensure adequate ventilation. Use personal protective equipment. See also Section 8.

Environmental Precautions:

Environmental Precautions:

No special environmental precautions required. Local authorities should be advised if significant spillages cannot be contained.

#### Methods and material for containment and cleaning up

Methods for containment: Prevent further leakage or spillage if safe to do so.

Methods for cleaning up: Avoid dry sweeping and use water spraying or vacuum cleaning systems to prevent airborne dust generation. Use of a vacuum with high efficiency particulate air (HEPA) filtration is recommended. Do not create a dust cloud by using a brush or compressed air. Pick up and transfer to properly labelled containers. Spent granular activated carbon may be recyclable. Dispose of virgin (unused) carbon (surplus or spillage) in a facility permitted for non-hazardous wastes. Spent (used) carbon should be disposed of in accordance with applicable laws. Do not reuse empty bags: dispose of in a facility permitted for non-hazardous wastes. See Section 13.

#### 7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling:Avoid contact with skin and eyes. Avoid dust formation. Do not breathe dust. Provide<br/>appropriate local exhaust ventilation at machinery and at places where dust can be<br/>generated. Do not create a dust cloud by using a brush or compressed air. Dust may form<br/>explosible mixture in air.

Activated carbons have high surface area which may cause self-heating during oxidation. Take precautionary measures against static discharges. All metal parts of the mixing and processing equipment must be earthed/grounded. Ensure all equipment is electrically earthed/grounded before beginning transfer operations. Fine dust is capable of penetrating electrical equipment and may cause electrical shorts. If hot work (welding, torch cutting, etc.) is required the immediate work area must be cleared of product and dust.

#### Conditions for safe storage, including any incompatibilities

Storage Conditions: Keep in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Do not store together with strong oxidizing agents. Keep in properly labeled containers. Activated carbon is difficult to ignite and tends to burn slowly (smolder) without producing smoke or flame. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosible mixture if they are released in the atmosphere in sufficient concentrations. Prior to entering a confined space that contains or previously contained activated carbon, the space should be evaluated for oxygen and carbon monoxide concentrations, and any other hazards, by a qualified person.

Incompatible materials: Strong oxidizing agents. Strong acids.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure guidelines:

Exposure limits for components or similar components are stated below.

Dust, or Particulates Not Otherwise Austria MAK: Specified:

Austria MAK:	10 mg/m³, STEL 2x30 min, Inhalable dust 5 mg/m³, TWA, Inhalable dust
Belgium:	10 mg/m³, TWA, Inhalable 3 mg/m³ TWA, Respirable
Canada (Saskatchewan):	10 mg/m³, TWA, Inhalable 3 mg/m³ TWA, Respirable
China:	8 mg/m³, TWA 10 mg/m³, STEL
France:	10 mg/m³, TWA Inhalable dust 5 mg/m³, TWA Respirable dust
Germany - TRGS 900:	10 mg/m <sup>3</sup> , TWA, Inhalable 3 mg/m <sup>3</sup> , Respirable fraction
Hong Kong:	10 mg/m³, TWA
Ireland:	10 mg/m³, TWA, Total inhalable 4 mg/m³, TWA, Respirable
Italy:	10 mg/m³, TWA, Inhalable 3 mg/m³, TWA, Respirable
Japan:	3 mg/m <sup>3</sup> TWA, Respirable
Malaysia:	10 mg/m³, TWA, Inhalable 3 mg/m³, TWA, Respirable
The Netherlands:	3.5 mg/m <sup>3</sup> , Inhalable
Spain:	10 mg/m³, VLA, Inhalable 3 mg/m³, VLA, Respirable
Sweden:	10 mg/m³, NGV, Total inhalable 5 mg/m³, NGV, Respirable
United Kingdom - WEL:	10 mg/m³, TWA, Total Inhalable dust 4 mg/m³, TWA, Respirable dust
US ACGIH - PNOS:	10 mg/m³, TWA, Inhalable 3 mg/m³, TWA, Respirable
US OSHA - PEL:	15 mg/m³, TWA, Total dust 5 mg/m³, TWA, Respirable

Silica, Crystalline (Quartz) CAS RN 14808-60-7: MAK: Maximale Arbeitsplatzkonzentration (I	Austria MAK: Belgium: Denmark: Finland: France: Ireland: Italy: Japan: Switzerland: UK WEL: US OSHA PEL: US ACGIH TLV: Maximum Workplace Conce	0.15 mg/m <sup>3</sup> , TWA (Respirable) 0.1 mg/m <sup>3</sup> , TWA (Alveolar fraction) 0.1 mg/m <sup>3</sup> , TWA (Respirable) 0.05 mg/m <sup>3</sup> , TWA (Respirable) 0.1 mg/m <sup>3</sup> , TWA (Respirable) 0.025 mg/m <sup>3</sup> , TWA (Respirable) 0.025 mg/m <sup>3</sup> , TWA (Respirable) 0.15 mg/m <sup>3</sup> , TWA (Respirable) 0.16 mg/m <sup>3</sup> , TWA (Respirable) 0.1 mg/m <sup>3</sup> , TWA (Respirable) 0.10 mg/m <sup>3</sup> , TWA (Respirable) (10 mg/m <sup>3</sup> ) /( %SiO2 + 2) (Respirable) (30 mg/m <sup>3</sup> ) /( %SiO2 + 2) (Total) 0.025mg/m <sup>3</sup> (Respirable)	
NGV: Nivå Gräns Värde (Level Limit Value) PEL: Permissible Exposure Limit STEL: Short Term Exposure Limit TLV: Threshold Limit Value TRGS: Technische Regeln für Gefahrstoffe (Te TWA: Time Weighted Average US ACGIH: United States American Conferen US OSHA: United States Occupational Safety VLA: Valore Límite Ambientales (Environmer WEL: Workplace Exposure Limit	echnical Rule for Hazardous ce of Governmental Industri and Health Administration	Materials)	
Engineering Controls:	Ensure adequate ventilation to maintain exposures below occupational limits. Provide appropriate local exhaust ventilation at machinery and at places where dust can be generated.		
Personal protective equipment [PPE	<u>=]</u>		
Respiratory Protection:	Approved respirator may be necessary if local exhaust ventilation is not adequate.		
Hand Protection:	Wear suitable gloves.		
Eye/face Protection:	Wear eye/face protection. Wear safety glasses with side shields (or goggles).		
Skin and Body Protection:	Wear suitable protective clothing. Wash clothing daily. Work clothing should not be allowed out of the workplace.		
Other:	Handle in accordance with good industrial hygiene and safety practice. Emergency eyewash and safety shower should be located nearby.		

# 9. PHYSICAL AND CHEMICAL PROPERTIES

Information given is based on data obtained from this substance or from similar substances.

Physical State:	Solid	Odor:	Generally odorless. May produce slight sulfur smell when wet.
Appearance: Color:	Granular Black	Odor threshold:	Not Applicable

Property pH: Melting point/freezing point: Boiling point / boiling range: Evaporation Rate: Vapor pressure: Vapor Density: Density: Bulk Density:	<u>Values</u> 28 - 34 lbs/ft <sup>3</sup>	Remarks • Method Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable No information available
Specific Gravity at 20°C: Water solubility: Solubility(ies): Partition Coefficient (n-octanol/water):		No information available Insoluble No information available No information available No information available
Decomposition temperature: Viscosity: Kinematic viscosity: Dynamic viscosity: Oxidizing Properties: Softening point: VOC content (%):		No information available No information available No information available Not Applicable No information available Not Applicable
% Volatile (by Volume): % Volatile (by Weight): Surface Tension:		No information available No information available No information available
Explosive properties: Flash Point: Flammability (solid, gas): Flammability Limit in Air:		No information available Not Applicable No information available No information available
Explosion Limits in Air - Upper Explosion Limits in Air - Lower Autoignition Temperature: Minimum Ignition Temperatur	(g/m <sup>3</sup> ):	No information available No information available No information available No information available No information available
Minimum Ignition Energy: Ignition Energy: Maximum Absolute Explosion Maximum Rate of Pressure Ris Burn Velocity: Kst Value: Dust Explosion Classification:		No information available No information available No information available No information available No information available No information available No information available

# 10. STABILITY AND REACTIVITY

Reactivity:	May react exothermically upon contact with strong oxidizers.
Stability:	Stable under recommended handling and storage conditions.
Possibility of hazardous reactions:	None under normal processing.
Hazardous polymerization:	Hazardous polymerization does not occur.

Product code: 830	Product name: NORIT® GAC 830	Revision date: 13-May-2015
Conditions to avoid:	Keep away from heat and sources of ignition. Avoid dust formation. Activated carbon (especially when wet) can deplete oxygen from air in enclosed spaces, and dangerously low levels of oxygen may result.	
	Activated carbons have high surface area which may	cause self-heating during oxidation.
Incompatible materials:	Strong oxidizing agents. Strong acids.	
Explosion data	See also Section 9.	
Sensitivity to Mechanical Impac	t: None.	
Sensitivity to Static Discharge:	Dust may form explosible mixture in air. Do not crea compressed air.	te a dust cloud by using a brush or
Hazardous decomposition products	: Used activated carbon may produce additional comb the substance(s) adsorbed. Materials allowed to smo spaces may produce amounts of carbon monoxide w (carbon monoxide LEL = 12.5% in air). Carbon oxides	older for long periods in enclosed which reach the lower explosive limit

11. TOXICOLOGICAL INFORMATION

Information given is based on data obtained from this substance or from similar substances.

Acute toxicity

Not classified.

Oral LD50:	LD50/oral/rat = >2000 mg/kg. (OECD 423).
Inhalation LC50:	LC50/inhalation/1h/rat = >8.5 mg/L (OECD 403)
Dermal LD50:	Absorption highly unlikely, no health effects known.
Skin corrosion/irritation:	Not classified Skin irritation test, rabbit (OECD 404): Not irritating
Serious eye damage/eye irritation:	Not classified. Eye irritation test, rabbit (OECD 405): Not irritating.
Sensitization:	Not classified. Not sensitizing based on Local Lymph Node Assay (OECD 429).
Mutagenicity: Carcinogenicity:	Not classified. - Gene mutation in bacteria (Bacterial Reverse Mutation Assay/Ames) (OECD 471): not mutagenic. - In vitro Mammalian Chromosome Aberration Test (OECD 473): not clastogenic. - In vitro Mammalian Cell Gene Mutation Test (OECD 476).: non-mutagenic. Not classified.
	Contains a component (crystalline silica) that is listed by IARC as group 1, by ACGIH as group A2, and by NTP as a known human carcinogen.

Product code: 830	Product name: NORIT® GAC 830	Revision date: 13-May-2015
Reproductive Toxicity:	Not classified. Repeated dose inhalation toxicity test showed no reproductive target organ effects, and a toxicokinetic study showed no product migration to reproductive organs.	
STOT - single exposure:	Not classified.	
STOT - repeated exposure:	Not classified. Repeated dose toxicity study, inhala 7.29 mg/m <sup>3</sup> (respirable). This test was conducted or negligible crystalline silica; therefore activated car Although respirable crystalline silica is classified as respirable crystalline silica, therefore it is not class	on activated carbon containing bon itself is not classified for STOT-RE STOT-RE1, this product contains <1%

Aspiration Hazard: Based on industrial experience and available data, no aspiration hazard is expected.

# 12. ECOLOGICAL INFORMATION

Information given is based on data obtained from this substance or from similar substances.

Aquatic Toxicity:	Non toxic. The substance is highly insoluble in water and the substance is unlikely to cross biological membranes. No adverse ecological effects are known.	
Terrestrial Toxicity:	Earthworm reproduction study (OECD 222), NOAEC for body weight reduction 1000 mg/kg soil; NOAEC for reproduction 3200 mg/kg soil. Non toxic in soil.	
ENVIRONMENTAL FATE Persistence and degradability	Not expected to degrade	
Bioaccumulation	Not expected due to physicochemical properties of the substance.	
Mobility:	Not expected to migrate. Insoluble.	
Distribution to Environmental Compartments:	Insoluble. Expected to remain on soil surface.	
Other adverse effects:	No information available.	
13. DISPOSAL CONSIDERATIONS		

Disclaimer: Information in this section pertains to the product as shipped in its intended composition as described in Section 3 of this MSDS. Contamination or processing may change waste characteristics and requirements. Regulations may also apply to empty containers, liners or rinsate. State/provincial and local regulations may be different from federal regulations.

RCRA:

Unused product is not a hazardous waste under U.S. RCRA, 40 CFR 261. Spent (used) product may be hazardous based on the substance adsorbed.

Disposal of wastes

Activated carbon, in its original state, is not a hazardous material or hazardous waste. Follow applicable regulations for waste disposal.

Spent (used) activated carbon may be classified as a hazardous waste depending upon its use, the substance(s) adsorbed, and how it is ultimately managed. Follow applicable regulations for disposal.

Recycling (reactivation) may be a viable alternative to disposal. Dust formation from residues in packaging should be avoided and suitable worker protection assured. Store used packaging in enclosed receptacles.

### 14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

#### DOT

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#### ICAO (air)

UN/ID no	Not regulated
Proper Shipping Name	Not regulated
Hazard Class	Not regulated
Packing group	Not regulated

#### IATA

UN/ID no	Not regulated
Proper Shipping Name	Not regulated
Hazard Class	Not regulated
Packing group	Not regulated

#### IMDG

Not regulated
Not regulated
Not regulated
Not regulated

#### RID

UN/ID no	Not regulated
Proper Shipping Name	Not regulated
Hazard Class	Not regulated
Packing group	Not regulated

#### ADR

UN/ID no	Not regulated
Proper Shipping Name	Not regulated
Hazard Class	Not regulated
Packing group	Not regulated

# 15. REGULATORY INFORMATION

#### Hazard Classification

United States - OSHA (29 CFR 1910.1200): Not Hazardous

Canada - WHMIS Classification (CPR, SOR/88-66): Not controlled

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the M/SDS contains all the information required by the Controlled Products Regulations.

Chemical name	WHMIS - Ingredient Disclosure
Quartz (respirable) 14808-60-7	1

#### International Inventories

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory	Complies
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List	Complies
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of	Complies
Notified Chemical Substances	
ENCS - Japan Existing and New Chemical Substances	Complies
IECSC - China Inventory of Existing Chemical Substances	Complies
KECL - Korean Existing and Evaluated Chemical Substances	Complies
PICCS - Philippines Inventory of Chemicals and Chemical Substances	Complies
AICS - Australian Inventory of Chemical Substances	Complies
NZIOC - New Zealand Inventory of Chemicals	Complies
TCSI - Taiwan Chemical Substance Inventory	Complies

#### **US Federal Regulations**

#### TSCA Section 12(b) Export Regulations:

This product does not contain any components that are subject to TSCA 12(b) Export Notification

#### SARA 311/312 Hazard Categories

Acute Health Hazard	NO
Chronic Health Hazard	NO
Fire hazard	NO
Sudden release of pressure hazard	NO
Reactive Hazard	NO

#### Clean Air Act Amendments of 1990

#### (CAA, Section 112, 40 CFR 82):

This product does not contain any components listed as a Hazardous Air Pollutant, Flammable Substance, Toxic Substance, or Class 1 or 2 Ozone Depletor

#### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

#### CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

#### US State Regulations

#### California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical name	California Proposition 65	
Quartz (respirable) 14808-60-7 (<10)	Carcinogen	

#### U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania	Louisiana:
Quartz (respirable) 14808-60-7	Х	X	Х	

#### **16. OTHER INFORMATION**

Disclaimer:

The information set forth is based on information that Cabot Corporation believes to be accurate. No warranty, expressed or implied, is intended. The information is provided solely for your information and consideration and Cabot assumes no legal responsibility for use or reliance thereon. In the event of a discrepancy between the information on the non-English document and its English counterpart, the English version shall supersede.

Prepared by:Cabot Corporation - Safety, Health and Environmental AffairsRevision date:13-May-2015

The DARCO®, GRO-SAFE®, PETRODARCO®, NORIT®, and PURIT™ trademarks are owned by one or more Cabot Corporation subsidiaries.

End of Safety Data Sheet