

GHS Safety Data Sheet

Torque Africa Exploration

Combined Drill Waste

Section1: Product & Generator Identification			
Waste Type	Combined Drill Waste	Synonym(s)	-
Waste Generator	Torque Africa Exploration	E-mail: braam.j@torqueafrica.co.za	
	PO Box 367	Emergency Contact Person	Braam Jankowitz
	Rayton 1001	Emergency No.	C: +27 83 635 2018
Waste Origin	The waste material is generated during rotary drilling operations through weathered sand and sedimentary strata of the Molteno Formation, mudstone aquiclude layers, and coal-bearing units of the Beaufort Group and Eccia Group. Drill cuttings are produced by mechanical fragmentation of these formations and are returned to surface in circulation with water-based drilling fluids.		
Section 2: Hazards Identification			
Physical	Health	Environmental	
N/A	Skin Irritation - Category 3	N/A	
GHS Hazard Symbol(s)			
Not Applicable			
Signal Word	Warning		
Hazard Statement(s)	H316: Causes mild skin irritation		
Precautionary Statement(s)	Precautionary statements provided to assist with safe handling and use. P264: Wash eyes thoroughly after handling. P270: Do not eat, drink or smoke when using this product. P281: Use personal protective equipment as required. P332+P317: If skin irritation occurs: Get medical help P391: Collect spillage. P308+P313: If exposed or concerned: Call a POSION CENTRE or doctor/physician. P501: Dispose of contents/container in appropriate waste skips		
Section 3: Composition / Information on Ingredients			
Common Chemical Name	Synonym(s)	CAS#	Concentration (%/weight)
Aluminium oxide	-	1344-28-1	1.28
Iron Oxide	-	1309-37-1	1.11
Calcium Carbonate	-	471-34-1	5.29
Quartz Low	-	14808-60-7	48.00
Kaolinite 1A	-	1318-74-7	9.30
Rutile	-	1317-80-2	0.10

Muscovite 2M1	-	1318-94-1 and 12001-26-2	2.10
Montmorillonite	-	1318-93-0	3.70
The 'Combined Drill Waste' consists of the above-mentioned ingredients, which may be present within their indicated concentration ranges in this waste stream.			
Section 4: First Aid Measures			
General advice	When consulting a physician. Show this safety data sheet to the doctor in attendance.		
Contact with Skin	If skin irritation occurs: Get medical help		
Contact with Eyes	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. If eye irritation persists: Get medical help.		
Inhalation	Do not breathe mists. IF INHALED: Remove person to fresh air and keep comfortable for breathing.		
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth with water. DO NOT induce vomiting. If exposed or if you feel unwell: Call a POISON CENTRE or doctor/physician.		
PPE for First Aid Responders	Wear protective gloves/protective clothing/eye protection/face protection/respiratory protection.		
Section 5: Fire-fighting Measures			
Extinguishing Media	Use extinguishing medium suitable to the surrounding environment.		
Potential Products of Combustion	Not determined.		
Protective equipment / precautions for fire-fighters	Wear self-contained breathing apparatus for firefighting as necessary.		
Section 6: Accidental Release Measures			
Personal Precautions / PPE	Response and clean-up crews must be properly trained. Wear protective gloves/protective clothing/eye protection/face protection/respiratory protection. Do not inhale dusts or mist. Ensure adequate ventilation.		
Environmental Precautions	Avoid release to the environment. Prevent further spillage or leakage if safe to do so. Do not let product enter drains or waterways. Absorb spillage to prevent material damage.		
Clean-up Method / Materials & Containment	SMALL SPILL	LARGE SPILL	
	As per large spill →	Clear area of all unprotected personnel. Approach release from upwind. Dike liquid fraction of waste (if present) with non-reactive absorbent. Collect spilled waste manually, and place into appropriate receptacle, noting that any materials used during the clean-up reflects the same hazards as the 'Combined Drill Waste'. Dispose of solid residues at an authorized site. If a significant quantity of material enters drains, advise emergency services.	
Materials/containers NOT to be Used for Clean-up	Not determined. .		
Section 7: Handling and Storage			
Precautions for Safe Handling	Do not handle until all safety precautions have been read and understood. Handle in accordance with good industrial hygiene and safety practice. Do not breathe dust or mist. Wash hands thoroughly after handling. Ensure adequate ventilation. The personal protection and controls identified in Section 8 of the SDS should be used as appropriate.		
Precautions for Safe Storage	Apply relevant license or regulatory conditions and or National Waste Storage Standards, as relevant. Store in a corrosion resistant container with a resistant inner liner. Dispose of contents/container to the appropriate landfill according to the GN R 635 and 636 (2013) as amended (7 November 2024).		
Compatibility Issues	Not determined.		

Section 8: Exposure Controls / Personal Protection			
Exposure Limits	Component	Source	Limit (mg/m³ unless otherwise stated)
	Aluminium oxide	OSHA PEL	15 mg/m³ (total dust, 8-hr TWA) 5 mg/m³ (respirable fraction, 8-hr TWA)
		NIOSH REL	10 mg/m³ (total dust) 5 mg/m³ (respirable dust)
		ACGIH TLV	1 mg/m³ (respirable fraction, 8-hr TWA)
	Iron Oxide	OSHA PEL	10 mg/m³ (total dust, 8-hr TWA) 5 mg/m³ (respirable fraction)
		NIOSH REL	5 mg/m³ (respirable, 10-hr TWA)
		ACGIH TLV	5 mg/m³ (respirable fraction)
	Calcium Carbonate	OSHA PEL	15 mg/m³ (Total dust 8-hr TWA) 5 mg/m³ (Respirable fraction 8-hr TWA)
		NIOSH REL	10 mg/m³ (Total dust 10-hr TWA) 5 mg/m³ (Respirable dust10-hr TWA)
		ACGIH TLV	10 mg/m³ (Inhalable fraction 8-hr TWA) 3 mg/m³ (Respirable fraction 8-hr TWA)
Quartz Low	OSHA PEL NIOSH REL	50 µg/m³ (respirable dust, 8-hr TWA)³ 50 µg/m³ (respirable, 10-hr TWA)	
	ACGIH TLV	0.025 mg/m³ (respirable fraction, 8-hr TWA)	
Kaolinite 1A	OSHA PEL	15 mg/m³ (Total dust 8-hr TWA) 5 mg/m³ (Respirable fraction 8-hr TWA)	
	NIOSH REL	10 mg/m³ (Total dust 10-hr TWA) 5 mg/m³ (Respirable dust10-hr TWA)	
	ACGIH TLV	2 mg/m³ (Respirable fraction 8-hr TWA)	
Rutile	OSHA PEL	15 mg/m³ (Total dust 8-hr TWA)	
	NIOSH REL	2.4 mg/m³ (Fine TiO₂) 0.3 mg/m³ (Ultrafine TiO₂)	

	Muscovite 2M1	ACGIH TLV	10 mg/m ³ (Inhalable fraction 8-hr TWA)
		OSHA PEL	~3 mg/m ³ (TWA (8-10 hr) – respirable fraction)
		NIOSH REL	3 mg/m ³ (TWA (8-10 hr) – respirable fraction)
	Montmorillonite	ACGIH TLV	3 mg/m ³ (TWA (8-10 hr) – respirable fraction)
		OSHA PEL	15 mg/m ³ (Total dust) 5 mg/m ³ (Respirable fraction)
		NIOSH REL	10 mg/m ³ (Total dust 10-hr TWA) 5 mg/m ³ (Respirable dust 10-hr TWA)
		ACGIH TLV	3 mg/m ³ (Respirable fraction 8-hr TWA)

Engineering Controls	Clean up contaminated areas. Ensure good ventilation.		
Personal Protective Equipment	Eye Protection	Safety glasses or goggles.	
	Skin Protection	Gloves and clothing covering body as determined by a risk assessment.	
	Respiratory Protection	Suitable respiratory equipment to be selected under guidance by the relevant occupational health and safety authority, in areas where exposure limits are likely to be exceeded.	

Section 9: Physical and Chemical Properties

Appearance		Physical Characteristics (continued)	
Physical state	Solid	Initial boiling point	Not determined.
Colour	Dark Brown	Flash point	Not determined.
Odour		Auto ignition temperature	Not determined
Odour	Low Odour	Decomposition temperature	Not determined
Odour threshold	Not determined	Solubility	Not determined
Physical Characteristics		Partition coefficient: n-octanol/water	Not determined
pH	9.74	Viscosity	Not determined
Melting point	Not determined	% volatile(s)	Not determined
Flammability	Not determined	Evaporation rate	Not determined

Section 10: Stability and Reactivity

Chemical stability	Stable under normal conditions.
Possibility of Hazardous Reactions	Not determined.
Hazardous Decomposition Products	Not determined.
Incompatible Substances / Materials	Not determined.
Conditions to Avoid	Incompatible materials.

Section 11: Toxicological Information			
Likely Routes of Exposure		Dermal, inhalation, and eye contact	
Acute Symptoms and Effects	Skin/eye Contact	Skin contact can cause mild skin irritation	
	Inhalation	*In its current form, inhalation hazards are not expected, as there would be no respirable fraction. However, if the waste were to dry out and become disaggregated or mechanically disturbed, the generation of respirable dust may occur. Under such circumstances, inhalation-related hazards (e.g., carcinogenicity, STOT-SE, or STOT-RE) could become relevant.	
	Ingestion / Oral exposure	-	
Constituent / Ingredient Toxicity	LD ₅₀		LC ₅₀
	Oral	Dermal	Inhalation (Dust)
Combined Drill Waste	N/A	N/A	N/A
Specific Target Organ Toxicity	Not in its current form.		
Germ Cell Mutagenicity	-		
Carcinogenicity	Not in its current form.		
Reproductive toxicity	-		
Irritancy	-		
Sensitization	-		
Section 12: Ecological Information			
Constituent Ecotoxicity	LC ₅₀	ErC ₅₀	
Combined Drill Waste	N/A	N/A	
Persistence and Degradability	Not determined.		
Bioaccumulation Potential	Not determined.		
Mobility in Soil	Not determined.		
Other Adverse Effects	Not determined.		
Section 13: Disposal Considerations			
As assessed in terms of the South African National Standard for the Assessment of Waste for Landfill Disposal (GN R 635 of 23 August 2013) – Type 3 waste.			
Potential Landfill Prohibition / Restrictions	None.		
Treatment Prior to Disposal	Not determined.		
Section 14: Transport Information			
Waste Classification	Not Regulated	Labelling Required	*Not required under the UN Model Regulations
UN number	-		
Shipping Name	-		
Packing Group	-		
UN Model Regulations / Transport Hazard Class(es)	-		
Marine Pollutant	-		
Special Instruction(s)	-		

Section 15: Regulatory Information	
Safety, Health and Environmental Legislation / Standards / Guideline	Comments / Applicability
National Environmental Management Act, 1998 (Act 107 of 1998)[NEMA]	Principles, aims and objectives from environmental management in South Africa.
National Environmental Management: Waste Act, 2008 (Act 59 of 2008)[NEM:WA]	Principles, aims and objectives for sound waste management practices in South Africa. Provides for, <i>inter alia</i> , the definition of 'waste'
National Waste Classification and Management Regulations (GN R 634 of 23 August 2013) and its amendment, (GN R 5524, of 7 November 2024)	Covers the requirements for waste management, classification and assessment for disposal to landfill of waste in South Africa.
National Standard for the Assessment of Waste for Disposal to Landfill (GN R 635 of 23 August 2013) and its amendment, (GN R 5522, of 7 November 2024)	Covers the requirements for the assessment of waste for disposal to landfill; where disposal is relevant.
National Standard for the Disposal of Waste to Landfill (GN R 636 of 23 August 2013) and its amendment, (GN R 5523, of 7 November 2024)	Covers the requirements (incl. prohibitions) for the disposal of waste to landfill; where disposal is relevant.
UN Model Regulations (Orange Book) (Recommendations on the Transport of Dangerous Goods)	Standard cover the identification of dangerous goods that are capable of posing significant risk to health and safety or to property and the environment; where such is linked to transport requirements for the transport of such goods.
GHS (10th revised Edition), (Globally Harmonised System of Classification and Labelling of Chemicals)	Covers the classification of hazardous substances, including waste, for their safe transport, use at the workplace or in the home according to their health, environmental and physical hazards, for example, acute toxicity and flammability.
National Water Act, 1998 (Act 36 of 1998)[NWA]	Promotes the protection of water resources in the National interest.
Occupational Health and Safety Act, 1993 (Act 85 of 1993)[OHSA], as amended	Provides for the health and safety of persons at work.

Section 16: Other Information

Physical Hazards		Health Hazards		Environmental Hazards	
Explosives	X	Acute Toxicity: Oral	X	Acute Toxicity – Acute	X
Flammable Gases	X	Acute Toxicity: Skin	X	Acute Toxicity – Chronic	X
Flammable Aerosols	X	Acute Toxicity: Inhalation	X		
Oxidizing Gases	X	Skin Corrosion/Irritation	✓		
Gases Under Pressure	X	Serious Eye Damage/Eye Irritation	X		
Flammable Liquids	X	Respiratory Sensitization	X		
Flammable Solids	X	Skin Sensitization	X		
Self-Reactive Substances	X	Germ Cell Mutagenicity	X		
Pyrophoric Liquids	X	Carcinogenicity	X		
Pyrophoric Solids	X	Toxic To Reproduction	X		
Self-Heating Substances	X	Specific Target Organ Toxicity – Single Exposure	X		
Substances That, On Contact With Water, Emit Flammable Gases	X	Specific Target Organ Toxicity – Repeated Exposure	X		
Oxidizing Liquids	X	Aspiration Hazard	X		
Oxidizing Solids	X				
Organic Peroxides	X				
Corrosive To Metals	X				

KEY	
Applicable	✓
Not applicable	X