



**forestry, fisheries  
& the environment**

Department:  
Forestry, Fisheries and the Environment  
**REPUBLIC OF SOUTH AFRICA**

**RISK MANAGEMENT PLAN IN TERMS OF REGULATION 10 OF THE WASTE  
EXCLUSION REGULATIONS**

	(For official use only)
File Reference Number:	12/9/11
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Date Received:	

Risk Assessment for an application for exclusion of waste stream or portion of waste stream in terms of the National Environmental Management: Waste Act, 2008(Act No.59 of 2008), as amended.

**Kindly note that:**

1. This form is current as of 01 April 2021. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority.
2. The information must be typed within the spaces provided in the form. The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided. Spaces are provided in tabular format and will extend automatically when each space is filled with typing.
3. Incomplete forms (including information as required in the application form may be returned to the applicant for revision and the inclusion of additional information.
4. Unless protected by law, all information filled in on this application will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this application on request, during any stage of the application process.

<b>BACKGROUND INFORMATION</b>	
<b>APPLICANT</b>	Gledhow Sugar Company (Pty) Ltd
<b>CONTACT PERSON</b>	Gledhow Sugar Company SHERQ Manager
<b>NAME</b>	Mr Clement Sithole
<b>ADDRESS</b>	1 Gledhow Mill Road, KwaDukuza, 4450 / PO Box 55, KwaDukuza, South Africa, 4450
<b>E-MAIL ADDRESS</b>	<a href="mailto:CSithole@Gledhow.co.za">CSithole@Gledhow.co.za</a>
<b>TELEPHONE</b>	032 437 4502
<b>CELL PHONE</b>	082 904 1645

<b>WASTE GENERATING FACILITY OR FACILITIES</b>						
<b>SOURCE (S) OF WASTE</b>	All the effluent liquid and boiler liquid waste is pumped to the Ash dam, the sedimentation of this is the sludge.					
<b>WASTE TO BE BENEFICIATED</b>	Sludge from the sedimentation dam					
<b>GPS CO-ORDINATES AT CORNERS OF WASTE GENERATING FACILITY OR FACILITIES</b>	<b>LATITUDE</b>			<b>LONGITUDE</b>		
	29°	22'	4.43"S	31°	17'	33.26"E
	29°	22'	8.02"S	31°	17'	36.31"E
	29°	22'	12.32"S	31°	17'	33.50"E
	29°	22'	10.82"S	31°	17'	29.26"E
29°	22'	6.25"S	31°	17'	29.03"E	
<b>BENEFICIAL USE/S</b>	Soil enhancer on sugar cane farms					

<b>WASTE GENERATING PROCESS</b>		
<b>MSDS ATTACHED IF HAZARDOUS</b>	<b>YES</b> Please refer to Annexure 1	<b>NO</b>
<b>WASTE GENERATING FACILITY</b>	<b>HAZARDOUS</b>	<b>GENERAL</b>

## RISK MANAGEMENT PLAN

Activity	Risk Description	Action(s) to minimise/manage the risk	Responsibility (Who is responsible to carry out the action(s))
<p>The following documents to be used in the management of the sludge:            Report accompanying the application.            Safety data sheet of the sludge.            All waste management and pollution management systems in place.            ILLOVO Group Code of Conduct and Business Ethics</p>		<p><b>To ensure all relevant staff and all stakeholders that will be</b></p> <ul style="list-style-type: none"> <li>• handling,</li> <li>• transporting,</li> <li>• storing, or</li> <li>• working with the sludge waste stream,</li> </ul> <p>to be made aware of the safety data sheet its contents, how to read it and where to obtain it. Each party: generator, driver/owner, and recipient of the sludge, are to have the latest, legal copy of the safety data sheet. Training must be held for the contents and understanding of the contents for all relevant stakeholders. Gledhow Sugar Company must incorporate the safety data sheet into the waste management system and emergency management systems, and contents into the work instructions, together with training and include these into the induction program.</p>	<p><b>Gledhow Sugar Company manager and all relevant staff, contractors, drivers, farmer and farm workers.</b></p>
<p>Sludge removal for farmer's use as a fertilizer on sugar cane fields.</p>	<ul style="list-style-type: none"> <li>• Storage over time and running out of dam storage space, if demand is low.</li> <li>• Windblown dust if sludge is dry out completely.</li> <li>• Risk of falling into the sludge dam</li> </ul>	<ul style="list-style-type: none"> <li>• To ensure no pollution occurs from this waste source or is managed should there be an incident.</li> <li>• for the administration to record this activity: the quantity of waste, the frequency of waste removal and to whom the waste is being distributed to.</li> <li>• The monitoring of the sludge demand must match the amount of sludge that is stored. This must not build up and cause an overflow into the environment</li> <li>• Should there be circumstances that would reduce the removal rate of the sludge then the sludge dam level must</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Manager in charge of the storage area for the sludge,</b></li> <li>• <b>Manager responsible for the sludge dam and the</b></li> </ul>

		<p>be closely monitored to ensure this facility can cope with any overflow from the mill.</p> <ul style="list-style-type: none"> <li>• The vehicle must be maintained to prevent any break-downs and down-time.</li> <li>• Correct Safety and Warning signage to be clearly visible by those entering the area.</li> <li>• Correct PPE to be worn at all times.</li> <li>• To stay away from the sludge dam.</li> <li>• To have eye wash bottles in the vehicles on site while working.</li> <li>• The farmer's demand for the product would be co-ordinated with the season that the fertilization of the fields is happening and hence be coordinated with the supply, to prevent build-up of the material.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Gledhow Sugar Company SHERQ manager.</b></li> <li>• <b>Security</b></li> <li>• <b>Production manager.</b></li> <li>• <b>Farmer/vehicle workshop supervisor.</b></li> </ul>
Access to sludge/sludge storage area.	<p><b>Security and safety:</b></p> <ul style="list-style-type: none"> <li>• Unauthorised access to the sludge area.</li> <li>• Unauthorised unmanaged removal of sludge</li> </ul>	<ul style="list-style-type: none"> <li>• Retain security and access control at the gates.</li> <li>• Patrols in the area to check from trespassers.</li> <li>• Checking for correct PPE.</li> <li>• Site induction covers the safety and health risks and requirements for entering the site.</li> <li>• Induction to be renewed every year.</li> <li>• The SDS is to be given to each farmer and worker.</li> <li>• Vehicle checks. <ul style="list-style-type: none"> <li>○ that safety equipment is in vehicle upon entering.</li> </ul> </li> <li>• Security to check no overfilled vehicles when leaving.</li> </ul>	<p><b>Gledhow Sugar Company security gate</b></p>
Process of transferring sludge to the receiving vehicles.	<p><b>Health, safety and environment.</b></p> <ul style="list-style-type: none"> <li>• Spillage onto area outside of protection area.</li> <li>• Splash onto personnel not authorised to be at the location.</li> </ul>	<ul style="list-style-type: none"> <li>• The sludge has a relatively high moisture, thus the impact from dust is minimised. However, should there be any drying out of the sludge, then dust needs to be minimised by keeping the sludge moist.</li> <li>• Ensure that only the responsible personnel needed for the activity are in the area for the duration of the transfer.</li> </ul>	<p><b>Manager responsible for waste and operations.</b></p>

	<ul style="list-style-type: none"> <li>• Harm to unauthorised persons in the area.</li> <li>• Dust from low moisture/dried sludge.</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure correct PPE is used in the area as per SDS: appropriate <ul style="list-style-type: none"> <li>○ eye and face,</li> <li>○ clothing,</li> <li>○ gloves,</li> <li>○ footwear and</li> <li>○ respiratory</li> </ul> </li> </ul> <p>protection is worn that is appropriate to the dust that may be generated and anticipated splashing that may occur.</p> <ul style="list-style-type: none"> <li>• Eye wash and safety shower station to be clearly demarcated and close by.</li> <li>• Careful management of the transfer of sludge to vehicles.</li> <li>• Procedure very clear for limit of vehicle load by weight and volume, to minimise on-site and off-site spillage.</li> <li>• Clean-up of storage area with each batch of sludge or at the end of each shift.</li> <li>• Ensure the area is cleaned at the end of the working day to minimise the chance of any oil grease or other materials to contaminate the mixture.</li> <li>• Clean up any litter and other materials that can contribute to the contamination of the sludge.</li> <li>• Have a clearly marked waste disposal area.</li> </ul>	
Transporting of sludge to farm.	<p><b>Health, safety, environment</b></p> <ul style="list-style-type: none"> <li>• <b>Spillage:</b> <ul style="list-style-type: none"> <li>○ Overfilling receiving vehicle trailer with sludge</li> <li>○ Road accidents which may result in spillages on the main and access roads.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Ensure the driver is trained on the contents of the SDS and appropriate actions needed should an emergency arise.</li> <li>• Ensure vehicles are well maintained with service records available.</li> <li>• The condition of the vehicle is to be monitored by the owner to include: <ul style="list-style-type: none"> <li>○ regular maintenance,</li> <li>○ driver reports for any concerns on the vehicle performance,</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Owner of vehicle,</b></li> <li>• <b>Driver supervisor,</b></li> <li>• <b>Driver,</b></li> <li>• <b>Security.</b></li> </ul>

	<ul style="list-style-type: none"> <li>○ Spillages of sludge which result in accidents.</li> <li>○ Non –compliance to the ROAD TRAFFIC ACT (RTA): <ul style="list-style-type: none"> <li>▪ driving unsafe vehicle,</li> <li>▪ Vehicle without correct placarding if load is hazardous.</li> </ul> </li> <li>○ Soil contamination.</li> <li>○ Groundwater, stormwater and surface water contamination.</li> <li>○ Affects the flora and local animals, domestic and wild as well as residents.</li> </ul>	<ul style="list-style-type: none"> <li>● Security gate personnel to check the vehicle: <ul style="list-style-type: none"> <li>○ condition when entering the gate,</li> <li>○ load in bin to ensure that there is minimum spillage on the journey.</li> </ul> </li> <li>● Should there be any incident on the public road or on farm roads, an enquiry is to take place, to investigate whether any actions are needed.</li> <li>● Spillages to be cleaned up in accordance to the SDS protocols and that the sludge is returned into the bin.</li> <li>● Illovo Gledhow Sugar Company hotline contact number (0800) clearly seen by outside persons affected by driver conduct or any incidents.</li> <li>● The placarding is clearly visible always on the vehicle.</li> <li>● Procedure for off-loading of sludge in the designated drop-off zones.</li> <li>● Protocol to ensure the off-loading vehicle driver knows the process for minimising the impact of the vehicle on the environment after completing the off-loading.</li> <li>● Driver to contact owner to clear up any spillages that occur on public roads or driver to clean up minor spillages.</li> <li>● Have a hotline for public complaints for sludge spillage and nuisance and register these on the SHE system. Address these with the responsible owner/driver.</li> <li>● Mill is not responsible for cleaning up spills, but must ensure that the owners of vehicles and drivers take responsibility for this.</li> <li>● Emergency procedures clearly outlined with issuing of the SDS for the implications of accidents and clean-up.</li> <li>● Clean-up protocols sufficient for clean-up to deal with the maximum loads including: <ul style="list-style-type: none"> <li>○ clean-ups,</li> </ul> </li> </ul>	
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		<ul style="list-style-type: none"> <li>○ barriers,</li> <li>○ fires,</li> <li>○ first aid if qualified.</li> <li>○ injuries,</li> <li>○ other.</li> </ul> <ul style="list-style-type: none"> <li>● Checks for correct driver emergency equipment and training to deal with the emergency.</li> <li>● Emergency numbers available for driver.</li> <li>● Vehicles to comply with all requirements for Road Traffic Act.</li> <li>● Vehicles to be placarded correctly as required.</li> </ul>	
Sludge off-loading onto farm designated area.	<p><b>Spillage:</b></p> <ul style="list-style-type: none"> <li>● Outside of designated area.</li> <li>● Depending on the offloading procedure, the offloading vehicle may spill residual sludge when travelling to other places to do work.</li> <li>● No applications or storage near residential areas.</li> </ul>	<ul style="list-style-type: none"> <li>● Ensure that the sludge is still moist to reduce the potential of windblown dust nuisance.</li> <li>● Any run-off is redirected away from any natural water source. This can be prevented by ensuring the riparian zone on the water course is intact.</li> <li>● The protocol for spreading onto the soils would be the same as any commercial fertilizer and other soil additives for soil management.</li> <li>● Ensure correct and appropriate PPE is used. <ul style="list-style-type: none"> <li>○ Eye wash water bottles to be available on the operational vehicles.</li> </ul> </li> <li>● From a cradle to grave perspective the Mill may be caretaker to ensure that no such fertiliser is offloaded or spilled in non-designated areas e.g. National road or entry point intersections or traverse areas. This is important to protect the Illovo brand.</li> </ul>	<ul style="list-style-type: none"> <li>● <b>Gledhow Sugar Company agriculture</b></li> <li>● <b>User of the sludge - farmer and supervisory staff.</b></li> </ul>
Storage at end user facilities	<p><b>Environment</b></p> <ul style="list-style-type: none"> <li>● Run off.</li> <li>● Windblown dust if sludge is allowed to dry.</li> </ul>	<ul style="list-style-type: none"> <li>● As given above for off-loading protocols to prevent run-off contamination of natural water sources.</li> </ul>	<b>Farmer.</b>

	<p><b>Safety</b></p> <ul style="list-style-type: none"> <li>• Unauthorised removal of material.</li> <li>• Sparks could cause the material to burn.</li> <li>• Natural biological processes causing heat buildup in the stored sludge body, this causing internal heat build - up and start smouldering possibly to set fire to surrounding sugar cane.</li> </ul>	<ul style="list-style-type: none"> <li>• Unauthorised removal of material is minimised by the farmer's internal security service by preventing trespassing in the property.</li> <li>• Long term storage should not occur of this and equivalent materials. It should spread over the prepared fields and be ploughed into the soils as soon as possible to dilute the sludge with the soil mix and thus prevent the hazard impacts that may affect health, safety and the environment</li> </ul>	
<p>Sludge management during distribution onto the intended farm soil as the fertilizer.</p>	<p><b>Health.</b></p> <p><b>Dust:</b> There may be health impacts from working with the possibly dried sludge during the spreading of fertilizer operations.</p> <p><b>Environment:</b></p> <ul style="list-style-type: none"> <li>• Any mixture run-off from the mixture spreading operations will affect the receiving environment if not managed correctly, especially near to natural water sources.</li> <li>• The SSV1 and 2 values from the guidelines for</li> </ul>	<ul style="list-style-type: none"> <li>• All staff in the field are to be supplied with the correct PPE and trained for: <ul style="list-style-type: none"> <li>○ Health and safety impacts of the sludge,</li> <li>○ application rates to prevent overdosing,</li> <li>○ as well as correct placement within the area of the field.</li> </ul> </li> </ul> <p>This is to keep the sludge away from the possibility of run-off to cause pollution in the natural water sources. The same protocols would apply as to application of commercial fertilizer onto the fields.</p>	<ul style="list-style-type: none"> <li>• <b>Farmer,</b></li> <li>• <b>Property owner,</b></li> <li>• <b>Field staff,</b></li> <li>• <b>Field supervisors:</b></li> </ul>

	contaminated soil require that the sludge is not used in a way that will impact natural water sources, neither near informal residential areas.		
Repeat application onto the same fields.	<b>Environment:</b> The soils may have salinity and toxic component build up if the soils and application are not monitored	Ensure that the work is conducted under management of a qualified agronomist that the soil viability is retained, to prevent salinity build up and correct pH management, as well as other specific soil requirements to keep the crop healthy.	<ul style="list-style-type: none"> <li>• <b>Farmer,</b></li> <li>• <b>Property owner and</b></li> <li>• <b>Field staff.</b></li> </ul>
Secondary waste generation	<b>Environment:</b> <ul style="list-style-type: none"> <li>• Sludge contaminating: <ul style="list-style-type: none"> <li>○ litter, oils, grease, as well as other items if the storage sites are not managed correctly.</li> <li>○ wind blown waste enters the sludge storage/dam.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Monitor any: <ul style="list-style-type: none"> <li>○ oil,</li> <li>○ grease,</li> <li>○ other waste stream spillages</li> </ul> </li> </ul> <p>that may contaminate the sludge waste.</p> <ul style="list-style-type: none"> <li>• It includes the clean-up of litter.</li> <li>• Should there be a spill in the mill area: immediately isolate the spill and clean it up, together with any contaminated ash, filter cake and sludge. These contaminated streams are to be isolated and managed for as per SHEQ protocol.</li> <li>• Disposal is to be safe and legal.</li> </ul>	<b>Gledhow Sugar Company,</b> <ul style="list-style-type: none"> <li>• <b>Waste manager and</b></li> <li>• <b>SHERQ manager.</b></li> </ul>
Emergency responders		<ul style="list-style-type: none"> <li>• The SDS MUST be made available to these personnel, to be able to understand the requirements for their own protection and the management of any spill.</li> <li>• The drivers of the vehicles are to be trained in how to respond SAFELY to any incident involving the load and who to contact in the case of any emergency.</li> <li>• The driver must know: <ul style="list-style-type: none"> <li>○ The protocol to manage the incident: and who to contact:</li> </ul> </li> </ul>	<b>Gledhow Sugar Company</b> <ul style="list-style-type: none"> <li>• <b>Waste manager,</b></li> <li>• <b>SHERQ manager.</b></li> <li>• <b>Affected staff.</b></li> </ul>

		<ul style="list-style-type: none"><li>▪ Owner,</li><li>▪ emergency responders – fire, and medical.</li><li>○ First aid skill, as required at the level of the driver too.</li></ul>	
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I, Clement Sithole (the Applicant) hereby declare that I have read the completed Risk Management Plan form and hereby confirm that the information is, to the best of my knowledge, true and correct

Furthermore, I declare that I am fully aware of my responsibilities in terms of the Waste Exclusion Regulations, and that failure to comply with these Regulations may constitute an offence in terms of the National Environmental Management: Waste Act, 2008 (Act 59 of 2008).



\_\_\_\_\_  
Signature of the applicant<sup>1</sup>/ Signature on behalf of the applicant:

Clement Sithole \_\_\_\_\_  
Name of Applicant:

SHERQ Manager \_\_\_\_\_  
Designation

28<sup>th</sup> of June 2023 \_\_\_\_\_  
Date:

\_\_\_\_\_  
<sup>1</sup> If the applicant is a juristic person, a signature on behalf of the applicant is required as well as proof of such authority.

**ANNEXURE 1:**  
**SAFETY DATA SHEET (SDS)**

# Safety Data Sheet

Waste handling and transport, RSA. No OELs / BLVs.

by: **TALBOT**  
talbot.co.za | talbot@talbot.co.za 

Conforms to SANS 10234:2019, SANS 11014:2010  
SDS compiled: 2021/10/27. Valid until: 2026/10/26  
unless the applicable substance or mixture is altered  
Version: 1

SDS Compiler v20.09.10.05.1

## WASTE MIXTURE: SLUDGE Sludge from Sedimentation Dam

### 1. Identification

#### GHS product identifier

Trade name(s) : Sludge from Sedimentation Dam

Supplier product code : No data available.

#### Other means of identification

Other synonym(s) : No data available.

Road & Rail PSN : NOT REGULATED

#### Relevant use(s) of the Mixture and restrictions on use

Identified use(s) : WASTE - intended for transport by road or rail, and disposal.

Uses advised against : WASTE - if a commercial product residue, not intended for original use. KEEP AWAY FROM clothing. DO NOT eat, drink or smoke when using this product. AVOID release to the environment. Collect spillage.

#### Generator details

Generator name : Gledhow Sugar Company

Generator address : 1 Gledhow Mill Rd

Contact title, name : Mr Dumisani Zungu

Phone number(s) : +27 (0) 32 437 4537

Alternative contact(s) : Dzungu@Gledhow.co.za

#### Emergency contacts

Contact title, name : Mr Dumisani Zungu

Emergency number(s) : +27 (0) 32 437 4537

After-hours number(s) : +27 (0) 32 437 4537

## 2. Hazards identification

### Classification of the Mixture per SANS 10234:2019

#### GHS hazard category : GHS hazard statements

- 2 : DEEMED SKIN IRRITATION
- 2A : DEEMED SERIOUS EYE IRRITATION

Hazards not otherwise classified : In the current form (wet sludge), the waste is not expected to carry any significant inhalation hazards.

[Inhalation of dust containing respirable crystalline silica is associated with silicosis, lung cancer and autoimmune disorders. Long term exposure to Aluminium oxide dust can lead to lung damage, while long term exposure to Iron Oxide dust can lead to pneumoconiosis (siderosis)]

### GHS hazard label elements

Symbol(s) :



Exclamation mark  
(GHS07)

Signal word : **WARNING**

### GHS hazard statements

Physical

No data available.

Health

H315 : Causes skin irritation

H319 : Causes serious eye irritation

Environmental

No data available.

### Precautionary measures label elements

General

## Prevention

- P220 : KEEP AWAY FROM clothing.  
P261 : AVOID breathing dust, fume, gas, mist, vapours, spray.  
P262 : DO NOT get in eyes, on skin, or on clothing.  
P264 : Wash skin thoroughly after handling.  
P270 : DO NOT eat, drink or smoke when using this product.  
P273 : AVOID release to the environment.  
P280 : Wear protective gloves, protective clothing, eye protection, face protection.

## Response

- P314 : Get medical advice / attention if you feel unwell.  
P374 : Fight fire with normal precautions from a reasonable distance.  
P391 : Collect spillage.  
P301+P312 : IF SWALLOWED: Call a POISON CENTRE or doctor /physician if you feel unwell.  
P302+P352 : IF ON SKIN: Wash with plenty of water.  
P304+P312 : IF INHALED: Call a POISON CENTRE or doctor/physician if you feel unwell.  
P305+P351+P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308+P311 : If exposed or concerned: Call a POISON CENTRE or doctor/physician.  
P337+P313 : If eye irritation persists: Get medical advice/attention.  
P362+P364 : Take off contaminated clothing and wash it before reuse.

## Storage

## Disposal

- P501 : Dispose of contents/container to an approved facility in accordance with all applicable regulations and landfill requirements per this safety data sheet's Section 13.

## Other

# 3. Composition or information on ingredients

Substance/mixture : Mixture

Ingredient(s)	CAS/IUPAC/Other Name(s)	[C/I/SA] %	Classification (Regulation)
Mixture	-	100%	H315 H319
Silicon dioxide (SiO <sub>2</sub> )*	7631-86-9	45.61% [NS]	-
Aluminium oxide (Al <sub>2</sub> O <sub>3</sub> )	1344-28-1	13.05% [NS]	-
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	1309-37-1	12.99% [NS]	-
Titanium oxide (TiO <sub>2</sub> )	13463-67-7	0.77% [NS]	-
Calcium Carbonate (CaCO <sub>3</sub> )	471-34-1	~1.32% [NS]	-
Magnesium oxide (MgO)	1309-48-4	0.45% [NS]	-

Notes to above table: [C] Constituent component; [I] Impurity; [SA] Stabilising Additive; [NS] Not Specified; [O]

Other possible ingredient(s) : Sodium and Potassium salts, Phosphorous (phosphates) and Sulphur (sulphates/sulphites) containing compounds, Calcium oxide/hydroxide

Additional Notes : \*Includes amorphous and crystalline forms  
- Elemental oxides were used to represent chemical composition.

## 4. First-aid measures

Where the manufacturer/supplier/generator was unable to specify relevant measures, SANS 10234:2019 precautionary statements have been used.

- Immediate actions : If exposed or concerned: Call a POISON CENTRE or doctor/physician.
- Actions to be avoided : DO NOT eat, drink or smoke when using this product. AVOID release to the environment.

### First-aid measures

- Inhalation : AVOID breathing dust, fume, gas, mist, vapours, spray. IF INHALED: Call a POISON CENTRE or doctor/physician if you feel unwell. Take off contaminated clothing and wash it before reuse.
- Skin Contact : KEEP AWAY FROM clothing. DO NOT get in eyes, on skin, or on clothing. Wash skin thoroughly after handling. Wear protective gloves, protective clothing, eye protection, face protection. IF ON SKIN: Wash with plenty of water.
- Eye Contact : DO NOT get in eyes, on skin, or on clothing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- Ingestion : DO NOT get in eyes, on skin, or on clothing. IF SWALLOWED: Call a POISON CENTRE or doctor /physician if you feel unwell.

**Anticipated effects and symptoms summaries** - see **Section 11** for full explanations

- Acute effects : No data available.
- Delayed effects : No data available.
- Symptoms / effects : No data available.

### Protection of first-aiders and notes for attending physicians

- First-aid protection : No data available.
- Physician notes : Get medical advice / attention if you feel unwell.

## 5. Fire-fighting measures

Where the manufacturer/supplier/generator was unable to specify relevant measures, SANS 10234:2019 precautionary statements have been used.

- Unsuitable extinguishing media : No data available.
- Extinguishing media and methods : No data available.
- Specific hazards arising from the Mixture : No data available.

Protection of fire-fighters : KEEP AWAY FROM clothing. AVOID breathing dust, fume, gas, mist, vapours, spray. Fight fire with normal precautions from a reasonable distance.

## 6. Accidental release measures

Where the manufacturer/supplier/generator was unable to specify relevant measures, SANS 10234:2019 precautionary statements have been used.

Personal precautions, protective equipment, and emergency procedures : KEEP AWAY FROM clothing. Wear protective gloves, protective clothing, eye protection, face protection.

Environmental precautions : AVOID release to the environment. Collect spillage.

Methods and materials for containment and for clean-up : No data available.

Secondary disaster prevention measures : No data available.

Additional information : No data available.

## 7. Handling and storage

Safe handling : DO NOT get in eyes, on skin, or on clothing. DO NOT eat, drink or smoke when using this product. AVOID release to the environment. Wear protective gloves, protective clothing, eye protection, face protection.

Safe storage : No data available.

Technical measures : No data available.

Incompatible materials : No data available.

Packaging : No data available.

Additional information : Eating, drinking and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment, and wash hands after use and before entering eating areas.

## 8. Exposure controls and personal protection

### Concentration and exposure limits

Permissible concentration : No data available.

### Exposure controls and Personal Protective Equipment (PPE)

Engineered controls : No data available.

Respiratory PPE : Wear respiratory protection.

Hand / arm PPE : Handle with gloves approved under appropriate government standards.

Eye / face PPE : Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards.

Skin / body PPE : Wear protective clothing.

Hygiene measures : Handle in accordance with good hygiene and safety practice. Wash hands before and after handling.

### Special conditions posing a hazard

Hazardous conditions : KEEP AWAY FROM clothing.

Additional information : No data available.

## 9. Physical and chemical properties (whole waste mixture)

Appearance : Wet, black sludge

Odour : Mild, earthy odour

Odour threshold : No data available.

pH, concentration : 7

Melting point : No data available.

Freezing point : No data available.

Initial boiling point : No data available.

Boiling point : No data available.

Boiling range : No data available.

Flashpoint : <93 °C - No Flash

Flammability : No data available.

Auto-ignition point : No data available.

Decomposition point : No data available.

Lower explosion limit : No data available.

Upper explosion limit : No data available.

Vapour pressure : No data available.

Evaporation rate : No data available.

Vapour density : No data available.

Density : No data available.

Bulk density : No data available.

Relative density, SG : No data available.

Solubility : No data available.

Partition coeff. (n-oct) : No data available.

Partition coeff. (water) : No data available.

Dynamic viscosity : No data available.

Kinematic viscosity : No data available.

Radioactivity : No data available.

## 10. Stability and reactivity

Conditions to avoid : No data available.

Incompatible materials : No data available.

Hazardous decomposition : No data available.

Additional information : No data available.

## 11. Toxicological information

### GHS Classification of Health Hazards

Acute toxicity : No data available.

Skin irritation/corrosion : Causes skin irritation

Eye damage/irritation : Causes serious eye irritation

Respiratory or skin sensitization : No data available.

Germ cell mutagenicity : No data available.

Carcinogenicity : No data available.

Reproductive toxicity : No data available.

Specific target organ toxicity - single exp. : No data available.

Specific target organ toxicity - repeated exp. : No data available.

Aspiration hazard : No data available.

Hazard	Ingredient	Result	Species	Dose	Time
Skin irritation	Mixture	H315 (2)	-	-	-
Eye irritation	Mixture	H319 (2A)	-	-	-

Additional information : Generic hazard data used above.

## 12. Ecological information

### GHS Classification of Aquatic Environment Hazards

Acute aquatic toxicity : No data available.

Chronic aquatic toxicity : No data available.

Hazard to the ozone layer : No data available.

Hazard	Ingredient	Result	Species	Dose	Time

Persistence and degradability : No data available.

Bioaccumulation potential : No data available.

Mobility in soil : No data available.

PBT, vPvB summary : No data available.

Other adverse effects : No data available.

Additional information : Generic hazard data used above.

## 13. Disposal considerations

Current disposal prohibition/restrictions : Type 0, Prohibited Waste per GN R636 (5)(1)(q)(ii) Waste with a moisture content >40% or that liberates moisture under pressure in landfill conditions, and which has not been stabilised by treatment. Analytical value of: 73 %.

Landfill Class (RSA) (subject to treatment) : Type 3 Waste: Class C Landfill (GLB+) per: GN R635 (7)(2)(d) - strictly subject to treatment due to GN R636 (5)(1) prohibited disposal: see above.

Future disposal prohibition/restrictions : Future Prohibited Waste per GN R636 (5)(1)(r)(iv) >6% Total Organic Carbon (TOC). Hazardous waste with analytical value of: 18 %. (Prohibited from: Aug 2028)

Safe, environmentally preferred disposal : Dispose of contents/container to an approved facility in accordance with all applicable regulations and landfill requirements per this safety data sheet's Section 13.

Additional information : Do not fly tip. Do not dispose into sewer, stormwater, or environment. Do not burn unless by means of compliant incineration practices.

## 14. Transport information

**Proper Shipping Name (PSN) for: Road & Rail (SANS 10228) | Air (IATA) | Sea Freight (IMO/IMDG)**

Road & Rail PSN : NOT REGULATED

IATA PSN : NOT REGULATED

IMO/IMDG PSN : NOT REGULATED

**Dangerous Goods Transportation: Road & Rail Requirements (SANS 10228:2012)**

UN number : -

Dangerous goods class (& Subsidiary) : -

Packing group : -

Special provisions : -

Packaging codes : -

Marine pollutant : No data available.

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

Regulation : Not intended for sea freight.

Shipment approved : Not intended for sea freight.

Pollution name : Not intended for sea freight.

Pollution category : Not intended for sea freight.

Ship type : Not intended for sea freight.

**Additional information**

Additional information : No data available.

## 15. Regulatory information

Occupational H&S : Occupational Health and Safety Act (Act No. 85 of 1993)

Environment & Disposal : National Environmental Management: Waste Act (Act No. 59 of 2008)  
: GN R634 Waste Classification and Management Regulations  
: GN R635 National Norms & Standards for the Assessment of Waste for Landfill Disposal  
: GN R636 National Norms and Standards for Disposal of Waste to Landfill

Other (domestic) : National Road Traffic Act, 1996 (Act No. 93 of 1996)

Other (international) : No data available.

Classification & Hazard : SANS 10228:2012 The identification and classification of dangerous goods for communication  
transport by road and rail modes  
: SANS 10234:2008 List of classification and labelling of chemicals in accordance with the Globally Harmonized System (GHS)  
: SANS 10234:2019 Globally Harmonized System of classification and labelling of chemicals (GHS)

## 16. Other information

Compilation & version : 2021/10/27, Version: 1, Revision: -

Revision(s) : Not applicable

### Summary of Mixture Hazard Classification and Categories

2 : DEEMED SKIN IRRITATION  
2A : DEEMED SERIOUS EYE IRRITATION

### Summary of Mixture Hazard Statements

H315 : Causes skin irritation  
H319 : Causes serious eye irritation

Signal word : **WARNING**

Other : No data available.

## Disclaimer & Use

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