

# ENVIRONMENTAL CONTINGENCY PLAN FOR THE TRANSPORT OF A SELECTED CONTAINER OF GOODS



Prepared by:



Prepared for:



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<b>Project:</b>	<b>ENVIRONMENTAL CONTINGENCY PLAN FOR THE TRANSPORT OF A SELECTED CONTAINER OF GOODS</b>	
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## **LIST OF ABBREVIATIONS**

<b>CO<sub>2</sub></b>	Carbon dioxide
<b>GPS</b>	Global positioning system
<b>HAZMAT</b>	Hazardous materials
<b>PG</b>	Packing group
<b>PPE</b>	Personal protective equipment
<b>UN</b>	United Nations

## 1 INTRODUCTION

Geo Pollution Technologies (Pty) Ltd was appointed by Corridor Logistics (Pty) Ltd (the Proponent) to construct an environmental contingency plan for the transport of a selected container of goods from Walvis Bay, Namibia to Lubumbashi in the Democratic Republic of Congo.

## 2 PURPOSE AND SCOPE

This plan provides guidance on how to respond to incidents during the transport of a container carrying hazardous and non-hazardous materials

It applies to all personnel involved in the shipment - from loading to final delivery - including drivers, handlers, and supervisors.

## 3 CARGO SUMMARY

**Table 3-1 Cargo Summary**

Item	Class / UN	Packing Group	Quantity (Kg)	Hazard
Nitric Acid	Class 8, UN 2031	PG II	2.3	Corrosive, oxidizing
Stalagmometer		PG II		Fragile
Alcafoam CL-M	Class 8, UN 1719	PG III	2,224.88	Corrosive
Flammable Liquid	Class 3, UN 1993	PG III	679.76	Flammable
Flammable Solids	Class 4, UN 1361	PG III		Self-reactive, flammable solid, can ignite spontaneously
Tumbler Glasses	Non-hazardous		7,601	Fragile
Spare parts	Non-hazardous		1,303.68	Fragile

## 4 TRANSPORT CHAIN OVERVIEW

**Mode:** Road transport across Africa from Namibia to Congo

**Container Type:** 40' high cube container

**Carrier / Logistics Operator:** Corridor Logistics

**Origin:** Walvis Bay, Namibia

**Destination:** Lubumbashi. The Democratic Republic of Congo

**Border Crossings:** Katima Mulilo, Zambia, The Democratic Republic of Congo - Lubumbashi

## 5 RISK IDENTIFICATION

**Table 5-1 Risk identification**

Risk	Description	Impact	Likelihood	Mitigation / Control Measures
Leak/Spill (Nitric Acid or Alcafoam)	Corrosive release damaging cargo or injuring handlers	High	Medium	Use secondary containment, proper segregation, and PPE
Fire / Explosion	Ignition of flammable liquids (UN 1993) or	High	Medium	Separate incompatible materials, keep away from heat sources, proper

<b>Risk</b>	<b>Description</b>	<b>Impact</b>	<b>Likelihood</b>	<b>Mitigation / Control Measures</b>
	flammable solids (UN 1361)			labelling, fire extinguishers
<b>Spontaneous Ignition (UN 1361)</b>	Flammable solid reacts to friction, heat, or contamination	High	Medium	Handle carefully, avoid impact, moisture, or contamination; store in ventilated area of truck
<b>Breakage (Glassware)</b>	Damage to tumbler pallets or instruments	Medium	Medium	Use shock-absorbent packaging, careful stacking
<b>Container Damage or Accident</b>	Collision or rollover	High	Low	Route planning, driver training, vehicle inspection
<b>Environmental Contamination</b>	Spill reaching soil or water	Critical	Low	Spill containment kits, immediate response protocol
<b>Border/ Customs Delays</b>	Documentation, inspections, or regulatory issues	Medium	Medium	Pre-cleared paperwork, local customs agents
<b>Theft/ Hijacking</b>	Cargo targeted in isolated or high-crime regions	High	Medium	GPS tracking, secure convoy travel, avoid night driving, secure overnight stops, local security liaison tracking,
<b>Extreme Weather/ Poor Road Conditions</b>	Floods, dust, potholes, seasonal challenges	Medium	High	Monitor weather, adapt schedule, use appropriate vehicles
<b>Medical Emergencies</b>	Remote areas, limited access to healthcare	High	Medium	Cell phone, first aid kits, emergency evacuation plan
<b>Political / Civil Unrest</b>	Roadblocks, demonstrations, checkpoints	High	Medium	Stay updated with travel advisories, reroute as necessary, avoid conflict zones

## 6 RESPONSE PROCEDURES

### IMMEDIATE ACTIONS

1. **Ensure personal safety** – Move away from danger zone.
2. **Identify the material involved** – Use placards and labels.
3. **Notify supervisor and emergency contacts immediately.**
4. **Contain the spill** (only if safe):
  - ◆ For **Nitric Acid**: Use acid-neutralizing agent; avoid water contact.
  - ◆ For **Alcafoam**: Absorb with inert material (sand).
  - ◆ For **UN 1993**: Eliminate ignition sources; use foam or dry powder for small fires.
  - ◆ **Flammable Solid (UN 1361)** → avoid impact, friction, or moisture; isolate from other materials; use non-sparking tools
5. **Secure area** and prevent unauthorized access.
6. **Record details** (time, location, quantity, response actions).

### SPECIFIC LAND HAZARDS

- ◆ Stay in secure locations during border stop or overnight rests

- ◆ Avoid high risk regions where cargo theft is reported
- ◆ Maintain constant GPS tracking and communication with operation control
- ◆ Use convoys for high-value or high-risk cargo where possible

## 7 COMMUNICATION CHAIN

**Table 7-1 Contact Details**

Role	Name	Contact	Responsibility
Incident Commander			Coordinate overall emergency response
Transport Supervisor			Manage driver and vehicle logistics
Safety/HAZMAT Officer			Hazard containment and clean-up
Communications Officer			Notify authorities, clients, media
Driver / Operator			Initial reporting and securing of site

## 8 RESOURCES AND EQUIPMENT

- ◆ HAZMAT spill response kit (acid-neutralizer, absorbents, PPE)
- ◆ Fire extinguishers (foam, CO<sub>2</sub>, dry chemical)
- ◆ Portable eyewash and emergency shower kit
- ◆ First aid kit
- ◆ Emergency contact sheet and route maps
- ◆ Secondary containment pallets

## 9 ALTERNATE ARRANGEMENTS

- ◆ **Alternate Port / Route:**
- ◆ **Backup Transport Carrier:**
- ◆ **Storage Facility (if return needed):**
- ◆ **Data Backup:** All shipping docs saved to company server/cloud

## 10 NOTIFICATION AND REPORTING

### 1. Internal:

- ◆ Operations Manager,
- ◆ Safety Manager,
- ◆ Quality Assurance

### 2. External:

- ◆ Terminal Authority
- ◆ Local Fire Brigade or Emergency Services
- ◆ Environmental Authority
- ◆ Client / Consignee
- ◆ Insurer

- ◆ Use Incident Report Form within 12 hours of event.

## 11 RECOVERY AND CONTINUITY

- ◆ Assess cargo and vehicle condition
- ◆ Isolate and safely dispose of damaged goods per hazardous waste protocol
- ◆ Clean contaminated areas with certified contractors
- ◆ Inspect and revalidate vehicle/container before reuse

- ◆ Conduct debrief meeting and update contingency plan based on lessons learned

## **12 TRAINING AND DRILLS**

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- ◆ HAZMAT response training: every 6 months
- ◆ Emergency spill drills: quarterly
- ◆ Driver safety refresher: annually
- ◆ Cross border procedures: Train in customs documentation and country-specific requirements
- ◆ Record all exercises in Training Log