Annex I - Saint Lucia

Saint Lucia, an island nation in the eastern Caribbean, is nestled between the Caribbean Sea and the Atlantic Ocean, forming part of the Lesser Antilles. The country has a land area of approximately 616 square kilometres and a population of around 183,000, with Castries serving as the capital. In total **21,932.54 kg/l of obsolete pesticides, 20,615.82 L of AFFF and 1,578 kg of MAPs** are earmarked for consideration for disposal.

Table 1 - Summary of the on-the-Ground Identified Stockpiles, by Site (LC-XX)[1]

Site Ref.	Site Name	GPS Coordinates	Type of Waste	Quantity (l/kg)
LC-01	PTCCB Shipping Containers, Union Agricultural Station	14°01'21"N 60°57'34"W	Obsolete pesticides	6,619
LC-02	SALCC Farm, Dennery	NA	Obsolete pesticides	1
LC-03	Deglos Solid Waste Management Facility	13°58'48"N 60°58'41"W	MAPs (fluorescent lamps)	1,578 lamps / 45.4 m³
LC-04	MoA Plant Propagation Station Shipping Container	14°01'24"N 60°57'32"W	Obsolete pesticides	1,259 + 4,800
LC-05	MoA Plant Propagation Station Chemical Store	14°01'23"N 60°57'32"W	Obsolete pesticides	171 + 9,000
LC-06	Castries Seaport	NA	Obsolete pesticides	0
LC-07	Castries Seaport Ferry Terminal	NA	Obsolete pesticides	18
LC-08	Vieux Fort Solid Waste Transfer Facility	NA	WEEE / MAPs	0
LC-09	GFL Charles Airport – Fire Hall	14°01'13"N 60°59'37"W	AFFF	2,251.72
LC-10	Hewanorra International Airport Fire Hall	13°43'53"N 60°56'57"W	AFFF	10,453.1
LC-11	Vieux Fort Seaport	NA	Obsolete pesticides	0

[1] The stockpiles in the colour "purple" have been nationally prioritized for disposal. The remaining stockpiles in the colour "black" are to be considered for disposal once the prioritised stockpiles have been accounted for. The stockpiles in the colour "red" are to be confirmed as they may be disposed of under a different project.

Site Ref.	Site Name	GPS Coordinates	Type of Waste	Quantity (l/kg)
LC-12	Vigie Lighthouse	NA	MAPs	0
LC-13	Union Substation	14°01'39"N 60°57'49"W	PCB	0
LC-14	Cul de Sac Power Station	NA	PCB	0
LC-15	Castries Substation	NA	PCB	0
LC-16	Praslin Substation	NA	PCB	0
LC-17	Reduit Substation	NA	PCB	0
LC-18	Soufriere Substation	NA	PCB	0
LC-19	Belle Plaine Generation Plant	NA	PCB	0
LC-20	Vieux Fort Substation	NA	PCB	0
LC-21	Port Vieux Old Power Station	NA	PCB	0
LC-22	Victoria Hospital, Castries	NA	MAPs	0
LC-23	St Jude's Hospital, Vieux Fort	NA	MAPs	0
LC-24	OKEU Hospital, Castries	NA	MAPs	0
LC-25	Buckeye Oil Terminal, St Lucia	13°58'43"N 61°00'12"W	AFFF / Obsolete pesticides	7,911 / 63

LC-01 PTCCB Shipping Container Store, Union Agricultural Station, Castries (14°01'21"N 60°57'34"W)

The obsolete pesticide stocks of the Pesticides and Toxic Chemicals Control Board (PTCCB) are held in two unventilated 40' shipping containers at the Union Agricultural Station. The stocks consist primarily of pesticides illegally imported into Saint Lucia and confiscated at ports of entry, together with obsolete pesticides from the Environmental Health Department of the Ministry of Agriculture and laboratory chemicals from government laboratories.

Table 2 - Inventory List of relevant Waste Streams at the Site

Type of waste	Description	Condition of Packaging	No. of packaging	Type of packaging	Quantity (kg/l)
Obsolete pesticides	Confiscated mixed insecticides	Moderate to poor		Cardboard box / Plastic bottles, Metal cannister, Plastic canister / can, bags	6,619

Table 3 - Site conditions

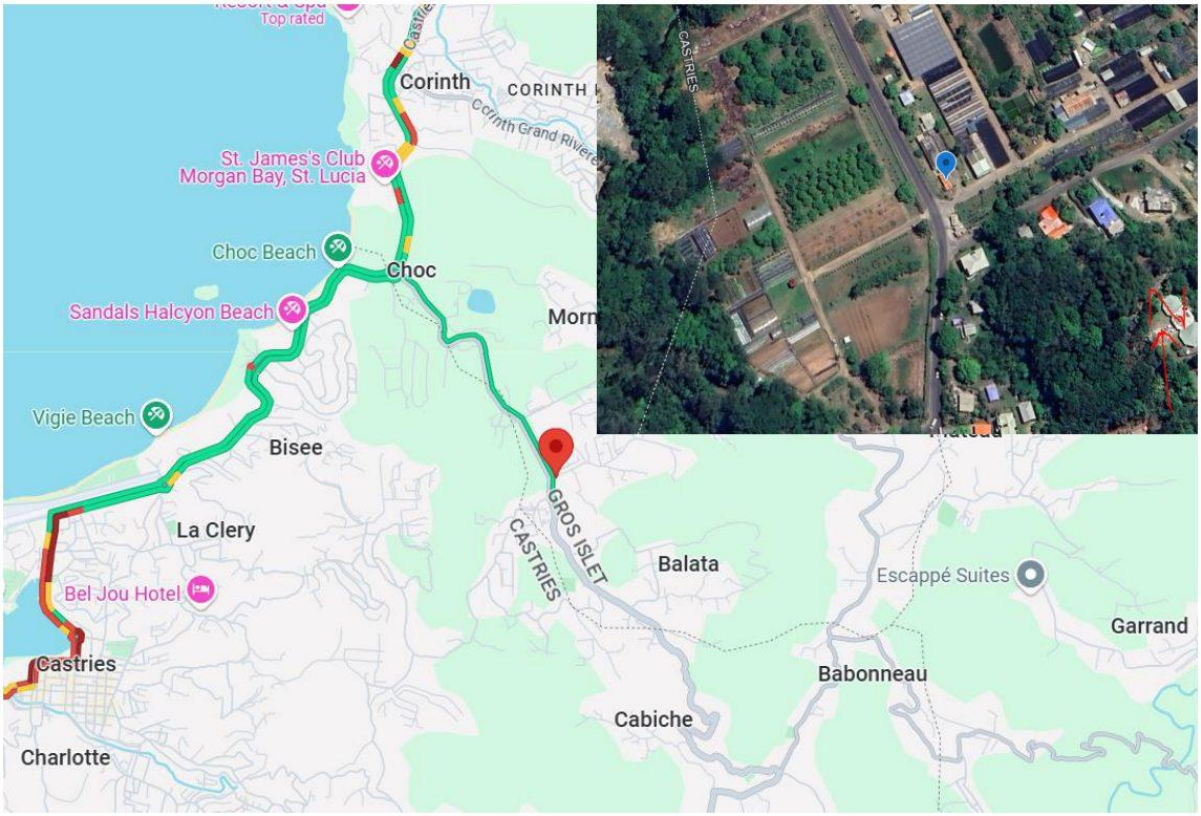
Site conditions	
Status of stored waste	Some signs of pesticide packaging breakage and spillage
Building conditions	Shipping container in moderate condition; no ventilation
Floor conditions	Wooden floors in moderate to poor condition
Site control	Yes, barbed wire with gate and 24-hour border control
Accessibility	Poor quality asphalt and gravel road,

	suitable for trucks

Table 4 - Site Geographical Setting

Site Geographical Setting	
Potential natural disasters	Hurricanes, floods, earthquakes
Proximity to a chemical factory, flammable materials storage or other industrial hazard	No
Proximity to residential area	Yes, closest houses some 100 m away
Proximity of public facilities within 500 m	No, school at 1,000 m
Proximity of groundwater wells within 250 m	Unknown
Proximity of open water within 500 m	Yes, canal some 50 m to the East
Proximity of crops or pastures within 250 m	Yes
Proximity of Food or Feedstuff Storage within 250 meters	Yes
Location within Recreational Area or National Park	No

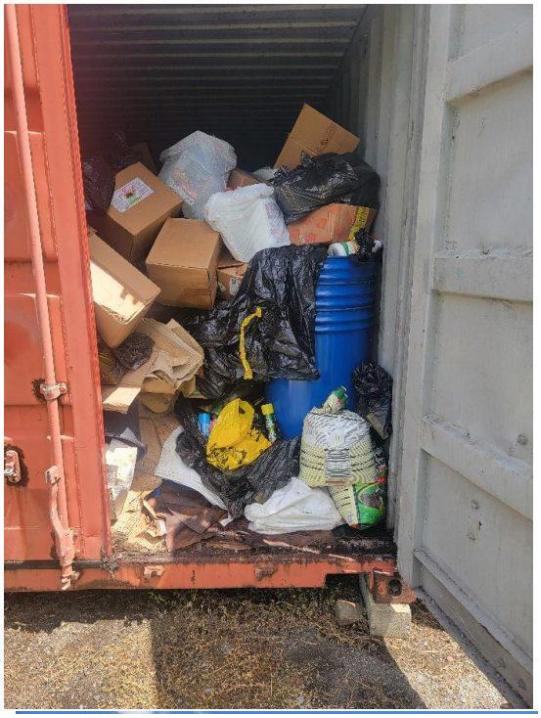
Figure 1. Map with Geographical Setting of the site


Corinth
CORINTH
St. James's Club
Morgan Bay, St. Lucia
Choc Beach
Choc
Sandals Halcyon Beach
Vigie Beach
Bisee
La Clery
Bel Jou Hotel
Castries
Charlotte
GROS ISLET
CASTRIES
Balata
Escappé Suites
Garrand
Babonneau
Cabiche

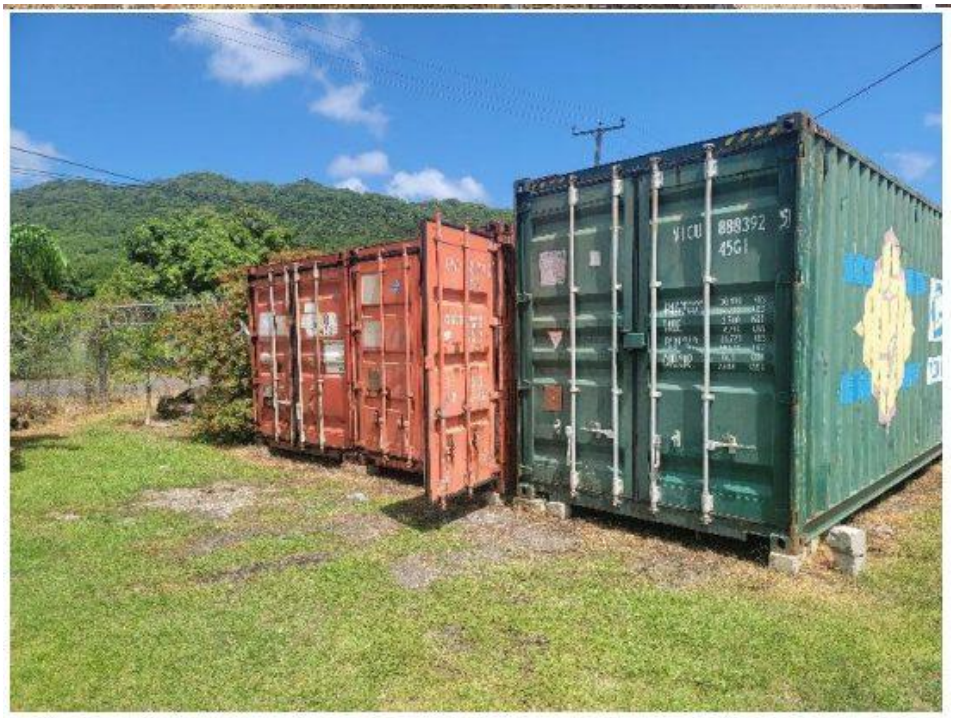
Site Layout


N

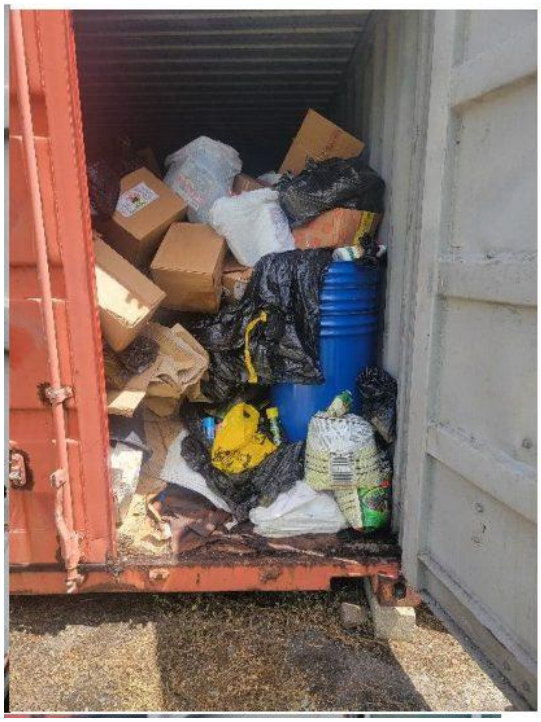
Photo report of the site








GEEST LIN
FRANCE/ CARIBBEAN



LC-02 Sir Arthur Lewis Community College (SALCC) Farm, Dennery

A small quantity of obsolete pesticide stock was identified at the Sir Arthur Lewis Community College (SALCC) Farm at Dennery. The data were submitted by the site owner. The stock is recommended for relocation to the PTCCB shipping container store at Union, Castries. No photographs of the waste are available.

Table 5 - Inventory List of relevant Waste Streams at the Site

Type of waste	Description	Condition of Packaging	No. of packaging	Type of packaging	Quantity (L)
Obsolete pesticides	–	–	–	–	1

LC-03 Deglos Solid Waste Management Facility, Cul de Sac, Castries (13°58'48"N 60°58'41"W)

The site is owned and operated by the Saint Lucia Solid Waste Management Authority (SLSWMA) and has been in operation since March 2003. A stockpile of crushed and intact fluorescent bulbs is held in the warehouse / storeroom on site, partly in garbage collection bins and partly lying directly on the floor. The warehouse is not designed for the storage of mercury-containing lamps.

Table 6 - Inventory List of relevant Waste Streams at the Site

Type of waste	Description	Condition of Packaging	No. of packaging	Type of packaging	Quantity (kg/l)

Type of waste	Description	Condition of Packaging	No. of packaging	Type of packaging	Quantity (kg/l)
MAPs – light sources with mercury	Uncrushed 4-foot fluorescent bulbs no markings	Moderate to poor	4	240 l garbage collection bins	Unknown
MAPs – light sources with mercury	Uncrushed fluorescent bulbs lying around the storage warehouse	Moderate to poor	–	Loose / unpackaged	est. 45.31 m³
MAPs – light sources with mercury	Crushed fluorescent bulbs	Sealed, good	3	208 l drums	est. 618

Table 7 - Site conditions

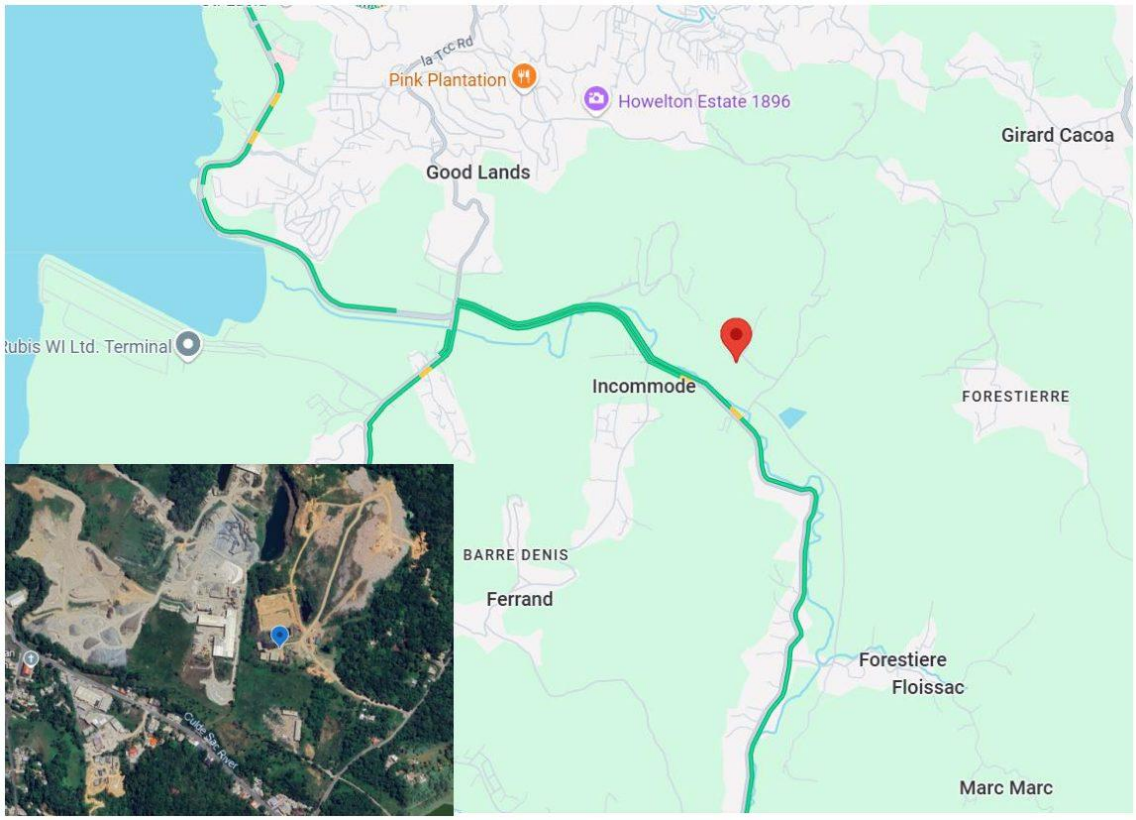
Site conditions	
Status of stored waste	Moderate to poor condition
Building conditions	Warehouse / store in good to moderate condition; not designed for storing bulbs
Floor conditions	Concrete floor in good condition
Site control	Yes, barbed wire with gate and 24-hour border control
Accessibility	Poor quality asphalt / gravel, suitable for trucks; may be more difficult after heavy rains

Table 8 - Site Geographical Setting

Site Geographical Setting	
Potential natural disasters	Hurricanes, floods, earthquakes
Proximity to a chemical factory, flammable materials storage or other industrial hazard	No

Proximity to residential area	Yes, closest houses approx. 500 m East and South-West
Proximity of public facilities within 500 m	None
Proximity of groundwater wells within 250 m	Unknown
Proximity of open water within 500 m	Yes, Cul de Sac river 500 m South
Proximity of crops or pastures within 250 m	Yes
Proximity of Food or Feedstuff Storage within 250 meters	No
Location within Recreational Area or National Park	No

Figure 2. Map with Geographical Setting of the site



Site Layout



Photo report of the site











LC-04 MoA Plant Propagation Station Shipping Container, Union, Castries (14°01'24"N 60°57'32"W)

Obsolete pesticide stocks are stored haphazardly in a 40' shipping container with deteriorating side walls and rotting flooring, partially exposed to the elements. There are clear signs of spillage, packaging breakage and faded labels indicating unknown pesticides. A second 40' shipping container is placed on top of this one, potentially compromising its structural integrity and requiring immediate removal.

Table 9 - Inventory List of relevant Waste Streams at the Site

Type of waste	Description	Condition of Packaging	No. of packaging	Type of packaging	Quantity (kg/l)
Obsolete pesticides	Racumin (Coumatetralyl), rodenticide, solid	Poor	6 / 6	Metal drum (50 kg) / Plastic bag	300
Obsolete pesticides	Ridomil MZ 72 WP (Metalaxyl 8% / Mancozeb 64%), fungicide, solid	Poor	60	Cardboard box / Plastic bag (1 kg)	60
Obsolete pesticides	Kocide 3000 (Copper hydroxide 46.1%), fungicide / bactericide, solid	Poor	12	Plastic bag (4.54 kg)	544.3
Obsolete pesticides	Storm 0.005 BB (Flocoumafen), rodenticide, solid	Poor	10	Plastic drum (10 kg)	100
Obsolete pesticides	Klerat 20 G Wax Blocks (Brodifacoum), rodenticide, solid	Poor	2	Plastic drum (10 kg)	20

Type of waste	Description	Condition of Packaging	No. of packaging	Type of packaging	Quantity (kg/l)
Obsolete pesticides	Bankit (Azoxystrobin 5%), fungicide, liquid	Poor	7	Plastic bottle (5 l)	35
Obsolete pesticides	Tilt 250 EC (Propiconazole 25%), fungicide, liquid, flammable	Poor	4	Metal drum (50 l)	200
Obsolete pesticides	Mixed unknown spilt pesticides (powders and granules), may include Carbofuran	Poor, deteriorated	_	Various sizes	est. 8 m³ (4,800)

Table 10 - Site conditions

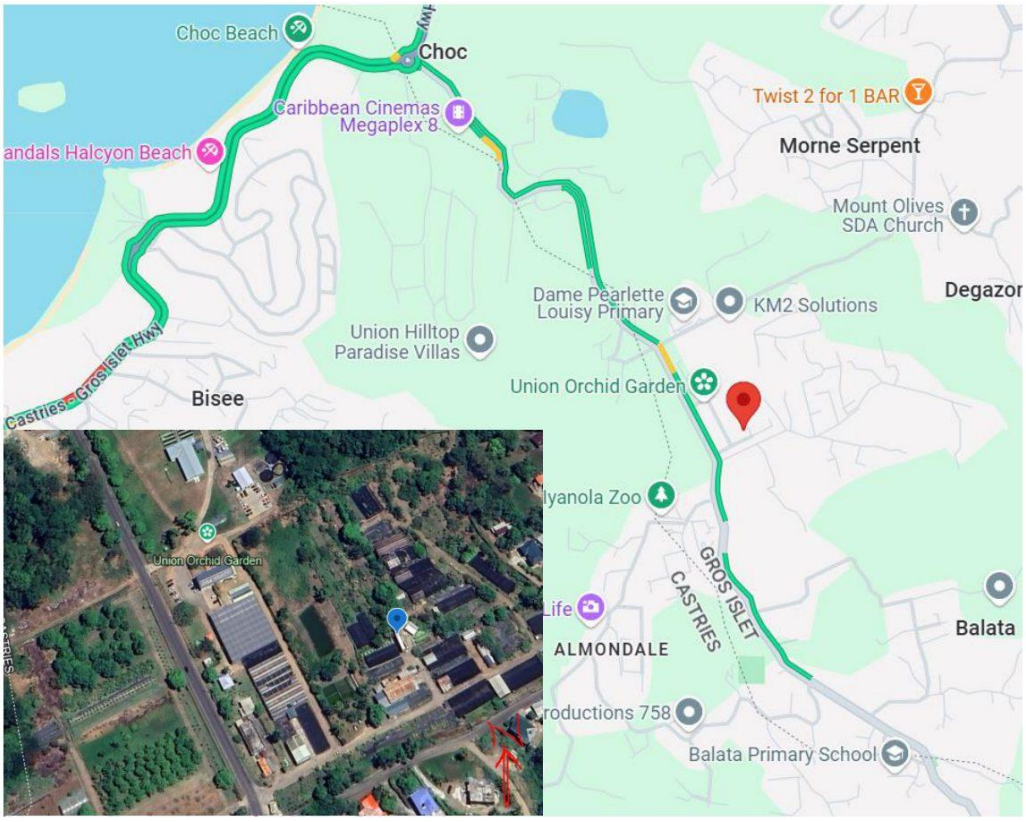
Site conditions	
Status of stored waste	Significant signs of pesticide packaging breakage and spillage
Building conditions	Shipping container with deteriorating walls in several areas
Floor conditions	Container floor in very poor condition and weakened, presenting a threat to anyone stepping inside
Site control	Yes, barbed wire with gate and 24-hour border control
Accessibility	Poor quality asphalt and gravel road, suitable for trucks

Table 11 - Site Geographical Setting

Site Geographical Setting	
Potential natural disasters	Hurricanes, floods, earthquakes
Proximity to a chemical factory, flammable materials storage or other	No

industrial hazard	
Proximity to residential area	Yes, closest houses some 500 m away
Proximity of public facilities within 500 m	No, school at 1,000 m
Proximity of groundwater wells within 250 m	Unknown
Proximity of open water within 500 m	Yes, river some 100 m to the West
Proximity of crops or pastures within 250 m	Yes
Proximity of Food or Feedstuff Storage within 250 meters	Yes
Location within Recreational Area or National Park	No

Figure 3. Map with Geographical Setting of the site



Site Layout



Photo report of the site










CAUTION
SLIGHTLY


SLIGHTLY

LC-05 MoA Plant Propagation Station Chemical Store, Union, Castries (14°01'23"N 60°57'32"W)

Obsolete pesticide stocks are stored haphazardly in a small, structurally fair chemical storeroom with an impermeable concrete floor, secured under lock and key, located behind the offices of the Plant Propagation Unit. The store appears to have been unused or ignored for a considerable period. There are significant signs of package breakage and spillage, and labels have deteriorated to the point where a number of products can no longer be identified. The storeroom is located adjacent to offices, plant propagation greenhouses and plots.

Table 12 - Inventory List of relevant Waste Streams at the Site

Type of waste	Description	Condition of Packaging	No. of packaging	Type of packaging	Quantity (kg/l) or m³
Obsolete pesticides	Solid fungicides, rodenticides and insecticide-nematicides and unidentified products	Poor	43	Paper and plastic bags, plastic bottles and drums	126.94
Obsolete pesticides	Liquid insecticides, herbicides and adjuvants	Poor to moderate	54	Plastic and glass bottles (0.25 – 3.79 l)	44.43
Obsolete pesticides	Spilt Blue Shield Hi Bio WG copper hydroxide fungicide	Poor, broken	–	Loose / unpackaged	est. 1.5 m³

Type of waste	Description	Condition of Packaging	No. of packaging	Type of packaging	Quantity (kg/l) or m³
Obsolete pesticides	Unidentified solid pesticides, no distinguishing marks or labels	Poor, broken, deteriorated	–	Loose / unpackaged	est. 0.256 m³
Obsolete pesticides	Unidentified liquids, most likely pesticides or liquid fertilizers	Very poor	20	Plastic bottles, assorted sizes	approx. 30

Table 13 - Site conditions

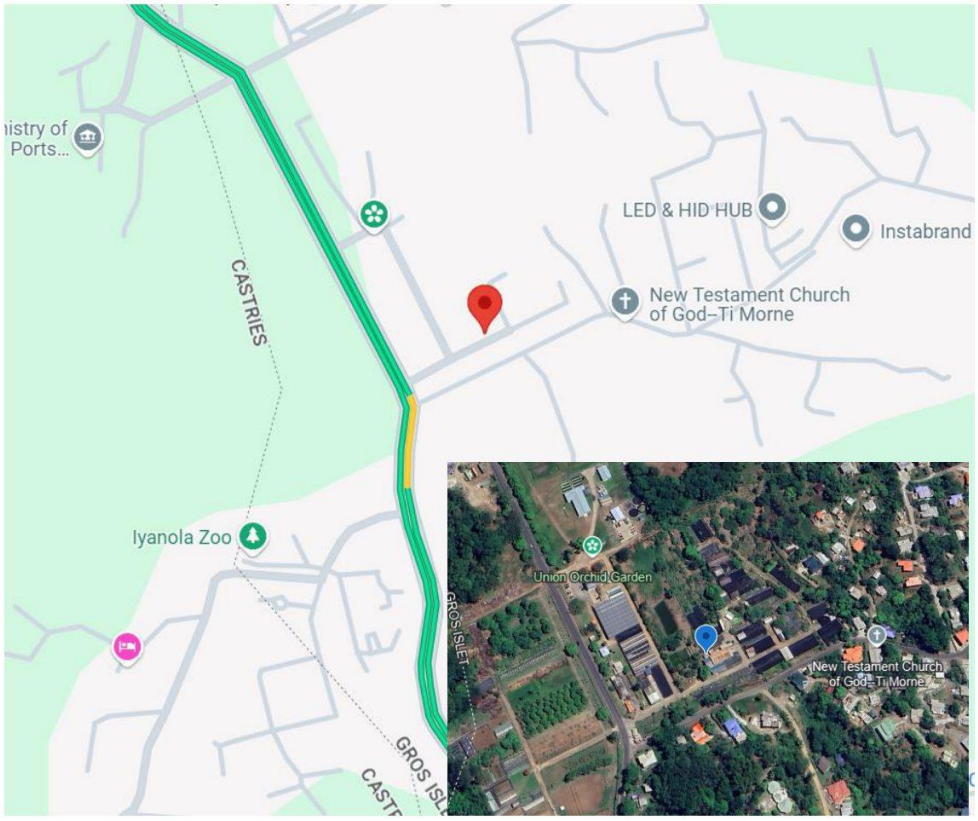
Site conditions	
Status of stored waste	Significant signs of pesticide packaging breakage and spillage
Building conditions	Good condition generally
Floor conditions	Concrete floor in moderate condition
Site control	Yes, barbed wire with gate and 24-hour border control
Accessibility	Poor quality asphalt and gravel road, suitable for trucks

Table 14 - Site Geographical Setting

Site Geographical Setting	
Potential natural disasters	Hurricanes, floods, earthquakes
Proximity to a chemical factory, flammable materials storage or other industrial hazard	No
Proximity to residential area	Yes, closest houses some 250 m away
Proximity of public facilities within 500 m	No, school at 1,000 m
Proximity of groundwater wells within 250 m	Unknown

Proximity of open water within 500 m	Yes, river some 50 m to the West
Proximity of crops or pastures within 250 m	Yes
Proximity of Food or Feedstuff Storage within 250 meters	Yes
Location within Recreational Area or National Park	No

Figure 4. Map with Geographical Setting of the site



Site Layout



Photo report of the site




FLOUR






CAPTAN
UNGICIDE

LC-07 Castries Seaport Ferry Terminal (SLASPA)

An inventory was made of a small quantity of unregistered pesticide products with French labels, in good packaging, confiscated from passengers arriving from Martinique or Guadeloupe and held at the Plant and Animal Health Quarantine Office store. **These stocks were relocated to the PTCCB shipping container store at Union, Castries.**

Table 15 - Inventory List of relevant Waste Streams at the Site

Type of waste	Description	Condition of Packaging	No. of packaging	Type of packaging	Quantity (kg/l)
Obsolete pesticides	Confiscated insecticides (Insectivor Cafards/Fourmis/Araignees aerosol spray, DIGRAIN Laque Choc mixed insecticide), gas / aerosols, liquids, solids and sludge	Good	–	Aerosol cans, bottles and bags	18.79

LC-09 George F. L. Charles Airport – Fire Hall, Vigie, Castries (14°01'13"N 60°59'37"W)

The site is located on the Saint Lucia Air and Sea Ports Authority (SLASPA) George F. L. Charles Airport property; the Fire Hall lies to the East of the main airport building. PFAS-containing AFFF fire-fighting foams are stored in drums, buckets, PVC tanks and fire tenders at several locations in and around the Fire Hall and storage areas.

Table 16 - Inventory List of relevant Waste Streams at the Site

Type of waste	Description	Condition of Packaging	No. of packaging	Type of packaging	Quantity (kg/l)
AFFF	FP 70 Fluoroprotein Foam Concentrate 3%, indoor storage area at the fire hall, manufactured 05-05-2006	Moderate	45	Plastic container (18.93 l)	851.72
AFFF	FP 70 Fluoroprotein Foam Concentrate 3%, outdoors at side of building	Moderate	7	Plastic container (200 l)	1,400
Total					**2,251.72**

Table 17 - Site conditions

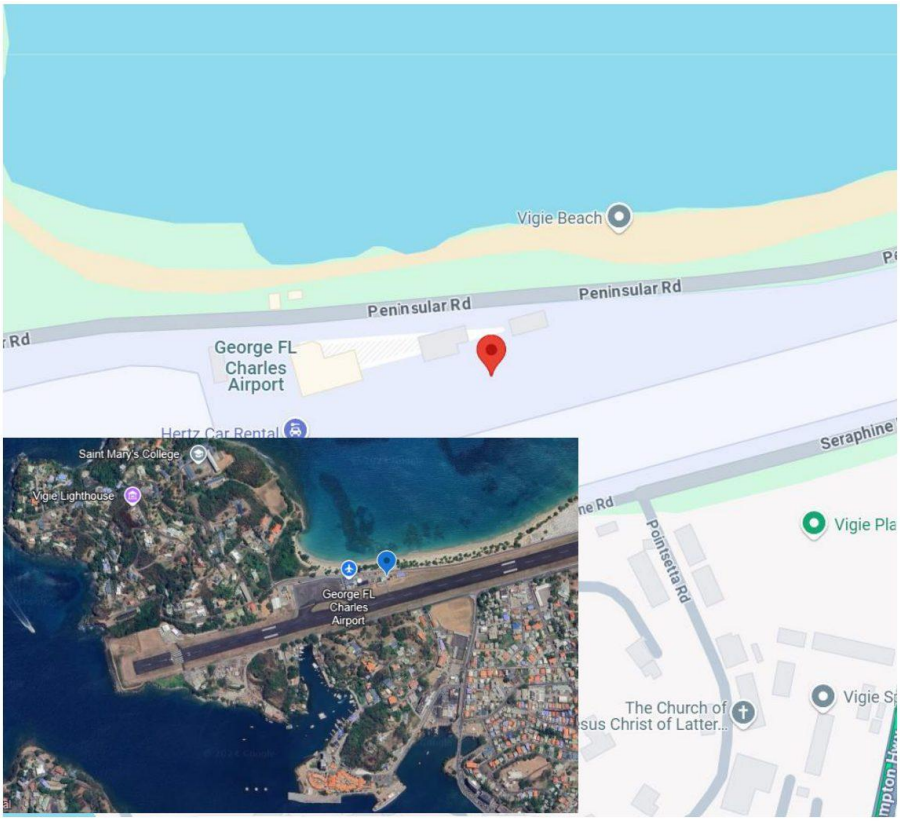
Site conditions	
Status of stored waste	Generally stored in good to moderate condition; no evidence of spillage
Building conditions	Fire Hall and storeroom in good

	condition
Floor conditions	Concrete floor in good condition
Site control	Yes, barbed wire with gate and 24-hour border control
Accessibility	Good quality asphalt / concrete, suitable for trucks

Table 18 - Site Geographical Setting

Site Geographical Setting	
Potential natural disasters	Hurricanes, floods, earthquakes
Proximity to a chemical factory, flammable materials storage or other industrial hazard	No
Proximity to residential area	Yes, closest houses approx. 400 m South
Proximity of public facilities within 500 m	Airport; school at 900 m North-West
Proximity of groundwater wells within 250 m	Unknown
Proximity of open water within 500 m	Yes, sea 100 m North
Proximity of crops or pastures within 250 m	No
Proximity of Food or Feedstuff Storage within 250 meters	No
Location within Recreational Area or National Park	No

Figure 5. Map with Geographical Setting of the site



Site Layout



Photo report of the site





LC-10 Hewanorra International Airport – Fire Hall, Beane Field, Vieux Fort (13°43'53"N 60°56'57"W)

The site is located on the SLASPA Hewanorra International Airport property; the Fire Hall lies across the runway, to the south of the main airport building. PFAS-containing AFFF fire-fighting foams of several brands and vintages are stored in drums, buckets, PVC tanks and fire tenders at various locations in and around the Fire Hall and storage areas. This is the largest single AFFF stock identified in Saint Lucia.

Table 19 - Inventory List of relevant Waste Streams at the Site

Type of waste	Description	Condition of Packaging	No. of packaging	Type of packaging	Quantity (l)
AFFF	National Foam Centurion 3% AFFF	Good	1	Plastic tank (4,091 l)	4,091.48
AFFF	National Foam Centurion 3% AFF	Good	1	Plastic container (200 l)	200
AFFF	National Foam Centurion 3%	Good	3	Metal tank (1,818 l)	5,455.31
AFFF	Fomtec AFFF 6% ICAO	Good	2	Plastic container (200 l)	400
AFFF	Telstar Industries fire-fighting foam	Moderate	10	Plastic container (18.93 l)	189.27
AFFF	Lorcon Fluoroprotein	Moderate	3	Plastic container (20 l)	60

Type of waste	Description	Condition of Packaging	No. of packaging	Type of packaging	Quantity (l)
AFFF	Ansulite 6% AFFF (AFC6B) Apr-2021	Good	3	Plastic container (19 l)	57
Total					**10,453.1**

Table 20 – Site conditions

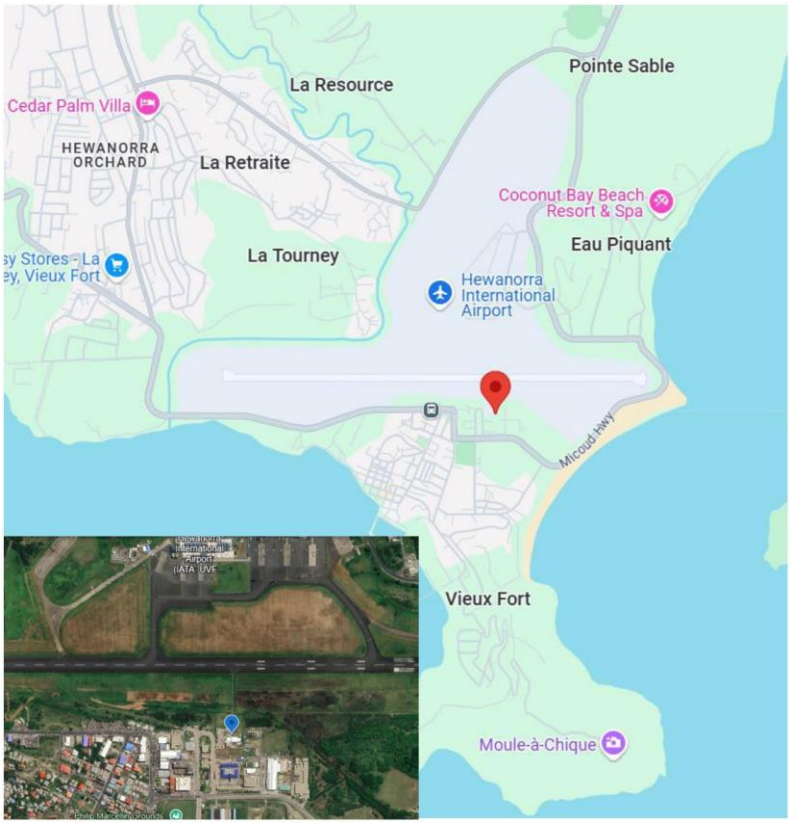
Site conditions	
Status of stored waste	Generally stored in good to moderate condition; no evidence of spillage
Building conditions	Fire Hall and storeroom in good condition
Floor conditions	Concrete floor in good condition
Site control	Yes, barbed wire with gate and 24-hour border control
Accessibility	Good quality asphalt / concrete, suitable for trucks

Table 21 – Site Geographical Setting

Site Geographical Setting	
Potential natural disasters	Hurricanes, floods, earthquakes
Proximity to a chemical factory, flammable materials storage or other industrial hazard	No
Proximity to residential area	Yes, closest houses approx. 800 m South-West
Proximity of public facilities within 500 m	Airport; school at 150 m South-West
Proximity of groundwater wells within 250 m	Unknown
Proximity of open water within 500 m	No, sea 1,000 m to the South-East
Proximity of crops or pastures within 250 m	No, grazing pastures some 400 m East
Proximity of Food or Feedstuff Storage within 250 meters	No
Location within Recreational Area or	No

National Park	

Figure 6. Map with Geographical Setting of the site



Site Layout



Photo report of the site





LC-25 Buckeye Oil Terminal, Cul de Sac, Castries (Warehouse 13°58'43"N 61°00'12"W; Fire House 13°58'44"N 61°00'15"W)

The Buckeye Oil Terminal is the sole oil terminal facility through which most crude and refined petroleum products are imported into Saint Lucia, including diesel, vehicle and aviation fuels and propane gas. A total of 7,911 litres of PFAS-AFFF was identified, stored in good condition in the facility's fire house and in the fire tender. In addition, 63.05 kg of obsolete herbicide, which expired in 2007, was found stored in the warehouse with packaging in moderate condition.

Table 22 - Inventory List of relevant Waste Streams at the Site

Type of waste	Description	Condition of Packaging	No. of packaging	Type of packaging	Quantity (kg/l)
Obsolete pesticides	Dupont Velpar DF Herbicide (Hexazinone 75%), dry flowable	Moderate	7	Plastic bag (9.07 kg)	63
Total					**63**
AFFF	Thunderstorm High Performance Alcohol Resistant AFFF 1% x 3%	Good	6	Plastic totes (1,003 l)	6,018
AFFF	Thunderstorm High Performance Alcohol Resistant AFFF 1% x 3%	Good	1	Fire truck metal tank	1,892.71
Total					**7,910.71**

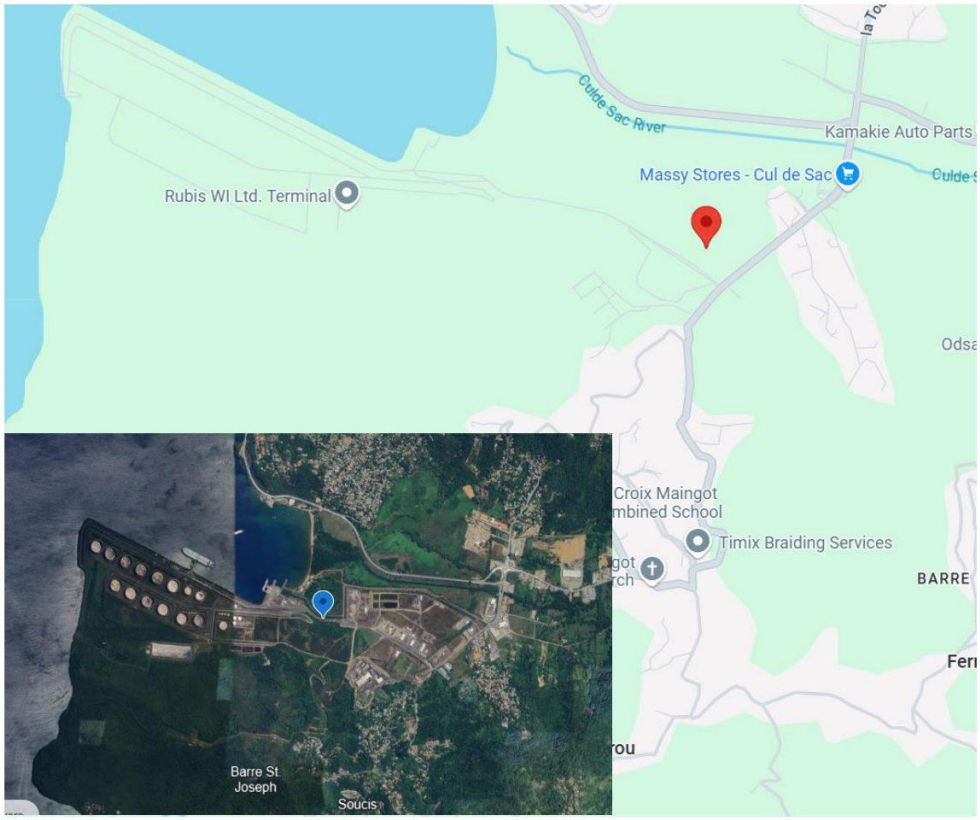
Table 23 - Site conditions

Site conditions	
Status of stored waste	Totes and herbicide packaging in good condition
Building conditions	Fire house and warehouse in good condition
Floor conditions	Concrete floor in good condition
Site control	Yes, barbed wire with gate and 24-hour border control
Accessibility	Good quality asphalt, suitable for trucks

Table 24 – Site Geographical Setting

Site Geographical Setting	
Potential natural disasters	Hurricanes, floods, earthquakes
Proximity to a chemical factory, flammable materials storage or other industrial hazard	Yes, the site is part of such a facility
Proximity to residential area	No, houses some 1,000 m away
Proximity of public facilities within 500 m	No, school at 1,000 m
Proximity of groundwater wells within 250 m	Unknown
Proximity of open water within 500 m	Yes, river some 500 m to the North
Proximity of crops or pastures within 250 m	No, grazing pastures some 500 m to the North
Proximity of Food or Feedstuff Storage within 250 meters	No
Location within Recreational Area or National Park	No

Figure 7. Map with Geographical Setting of the site


Culde Sac River
Kamakie Auto Parts
Massy Stores - Cul de Sac
Rubis WI Ltd. Terminal
Croix Maingot
mbined School
Timix Braiding Services
BARRE
Barre St
Joseph
Soucis

Site Layout

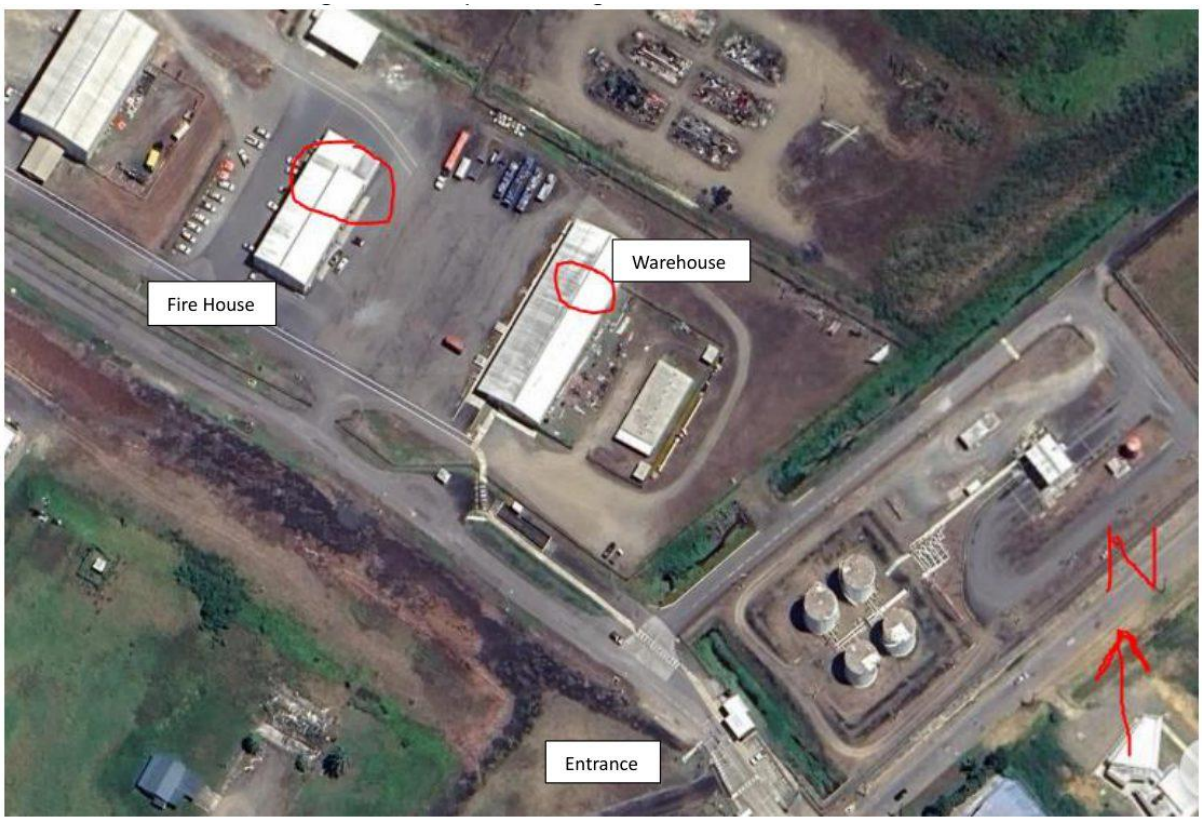

Warehouse
Fire House
Entrance
N

Photo report of the site






THUNDERSTORM
HIGH PERFORMANCE ALCOHOL RESISTANT AQUEOUS FILM-FORMING FOAM CONCENTRATE
USE AT 1% FOR HYDROCARBONS AND 3% FOR ALCOHOLS
1% x 3% AR-AFFF
CONTENT 265 GALS. (1,003 LITERS)
SHIPPING ASSEMBLY PART NO.
710122
WILLIAMS
THUNDERSTORM 1% x 3% AR-AFFF
FC601-A
CONTENTS 265 GALS. (1,003 L) PART NO. 710122
High Performance Alcohol Resistant Aqueous Film-Forming Foam Concentrate
STORAGE TEMPERATURES: Minimum 35°F (2°C), Maximum 120°F (49°C).
Do not mix with other liquids except as noted in the instructions for use. Protect from freezing.
INSTRUCTIONS FOR USE: THUNDERSTORM foam concentrate is a non-corrosive, synthetic concentrate for use by dilution with water in firefighting foam-making equipment – either fixed or mobile systems. The concentrate may be diluted with sea or fresh water for use in flow proportioning equipment. The volume proportions are 1% concentrate to 99% water for hydrocarbon fuels and 3% concentrate to 97% water for polar solvents/alcohols.
This product is designed and packaged for the industrial, commercial or professional user.
IMPORTANT NOTICE TO PURCHASER: Purchaser must evaluate and determine whether the product is suitable for intended application.
SDS AVAILABLE AT: www.williamsfire.com
PRODUCT INFORMATION SOURCE: Safety Data Sheet or Tyco Fire Protection Products, 9605 Richard Wycoff Dr., Port Arthur, TX 77640 I 24 Hr. Emergency # (409) 727-2347
Lot No.:
Date Packed:
TYCO FIRE PROTECTION PRODUCTS
MARINETTE, WI 54143-2542