



United Hospital Systems serves Southeastern Wisconsin and Northern Illinois.

This is a 12-month Comprehensive Evaluation Report of Secured Destruction of Controlled Substances.

It was completed in October 2016.

**SECURED DESTRUCTION OF CONTROLLED SUBSTANCES:**  
*Introduction to the Rx Destroyer System*

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2. Comparison of Product Features
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## **SECURED DESTRUCTION OF CONTROLLED SUBSTANCES:**

### *Introduction to the Rx Destroyer System*

#### **1. Summary**

United Hospital System (UHS) is committed to the safe and environmentally responsible management and disposition of hazardous wastes and controlled substances. In compliance with all applicable local and federal regulations.

listed below are key points from a 12 month evaluation of the hazardous waste stream in the organization. The knowledge augments the content of both the UHS hazardous Waste Materials and Waste Plan and the Environmental Services Hazardous Waste Policy and relates specifically to the disposal of DEA pharmaceuticals.

Additional contents include the rationales behind recommending the Rx Destroyer System as a product to assist UHS in maintaining DEA compliance.

#### **I. What Is a Controlled Substance?**

- The concept of a controlled substance is essentially defined by both the EPA and DEA.
- From the EPA perspective, It is a hazardous waste with properties that make it dangerous or capable of having a harmful effect on human health or the environment.
- From the DEA perspective, controlled substance is a legally prescribed drug with potential for abuse, dependency, and addiction.
- A review of 2,660 drugs on the UHS formulary showed a potential 170 DEA controlled substances.
- Of the 170 controlled substances, eleven (11) were identified as EPA hazardous flammable wastes.
- Subsequently, the review showed the need to include specific controlled substance disposal procedures in the hazardous waste program to ensure compliance with both EPA and DEA regulations.

#### **II. How do we dispose of Controlled Substances?**

- The eleven (11) identified as EPA hazardous will be segregated in a fashion akin to current black bucket practices.
- The remaining 159 must be disposed of securely.
- The DEA standard for secure disposal of controlled substances mandates a destruction process which renders drugs as 'non-retrievable.'
- The standard does not require a particular method of destruction so long as the desired result is achieved.
- The leading methods of destruction are absorption and denaturation.
- The Rx Destroyer System uses activate carbon to absorb and neutralize.

### III. Why the Rx Destroyer System?

- Financial: (Locations Calculated: Liquids-OR, GI, Birthing Inn/Solids-ICU, Inpatient Floors, ERs)
  - Lowest estimated year 1 Investment expense for containers and replacement containers capable of accepting solids and liquids, accessories, maintenance, labor, and disposal.
  - Expenses remain the lowest after a 3 year projection.
- Operational:
  - Simplicity: Ready to Use = *Load - Shake - Discard*
  - Capacity: Size options reduce financial concerns regarding compliance In all areas using controlled substances.
  - No cleaning
  - No need for solidifier (although recommended)

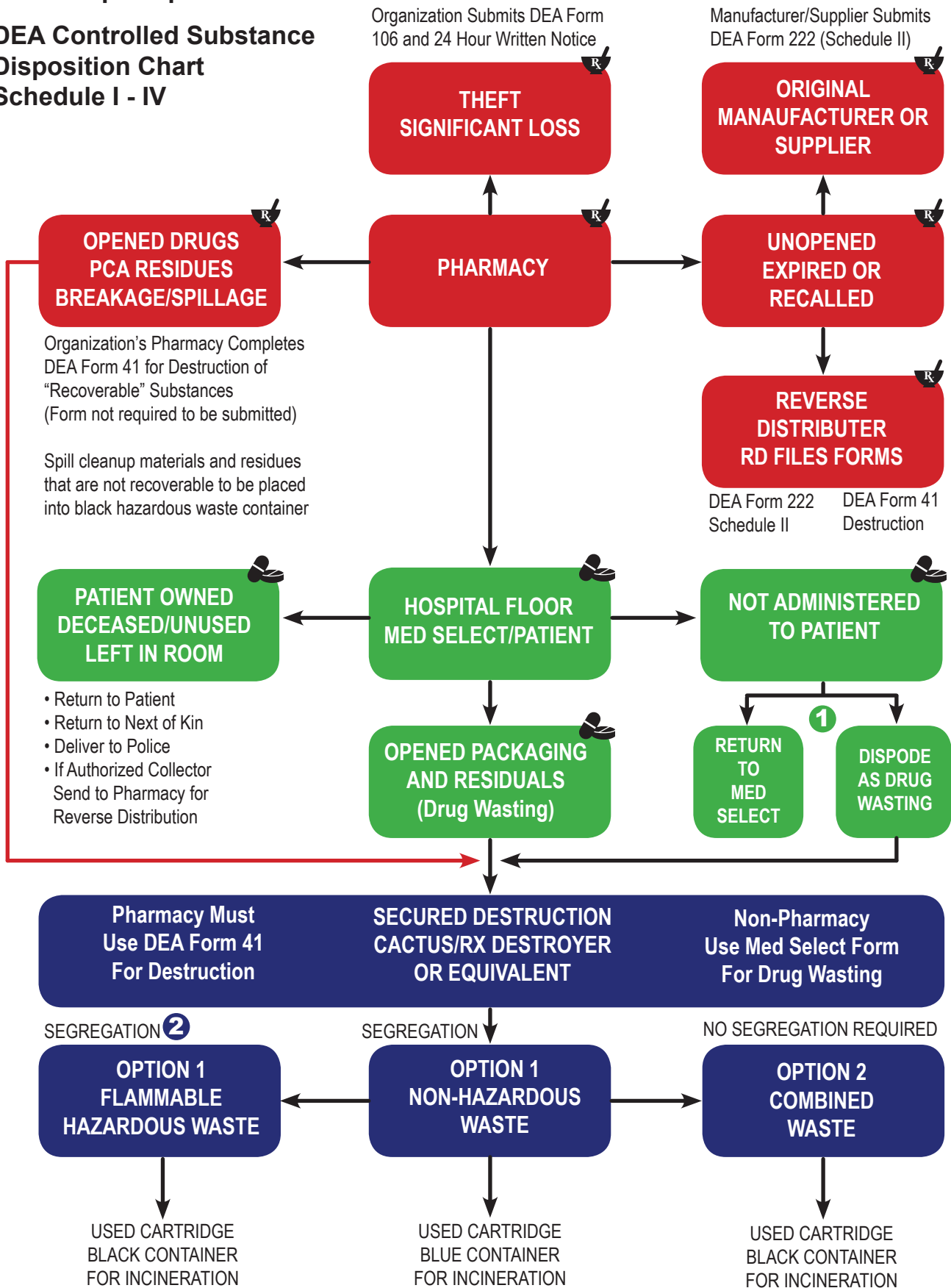
## 2. Comparison of Product Features

	Cactus Sink	Pharmalock	Rx Destroyer	CsRx System
Satisfies DEA	X	X	X	X
Limits diversion	X	X	X	X
Absorption			X	X
Denatures	X	X		
Accepts solids and liquids In the same unit	X		X	X
Offers estimated capacity of pills and/or liquids			X	
Able to accept RCRA Hazardous Waste	X	X	X	X
liquid only options available		X	X	
Self monitoring alerts	X			
Locking options available	X	X	X	X
Ability to view current capacity (site gauge)			X	X
Lock/Key mechanism included	X	X		X
Optional mounting brackets	X	X	X	X
Mounting brackets included in initial purchase	X	X		X
Uses electricity	X			
Uses battery	X			
Warranty options	X			
Complete hands-free use	X	X		
Requires agitation for activation				X
Require addition of water	X	X		X
Requires solidifier before disposal				X
Ready to use direct from vendor			X	
Solidifier Included In purchase			X	X
Tether cap options on all sizes	X	X	X	
Size/capacity options below 2 gallons			X	X
Size/capacity options above 3 gallons			X	X
Disposal fees include In purchase	X	X		X
Requires extra labor for mall back	X	X		X
Inventory automatically reloaded after disposal				X

\*UHS has 170 controlled substances, eleven (11) are Identified as hazardous flammable waste, Best practices Indicate that separation of these drugs by segregation Is preferred.

### 3. Concept Map:

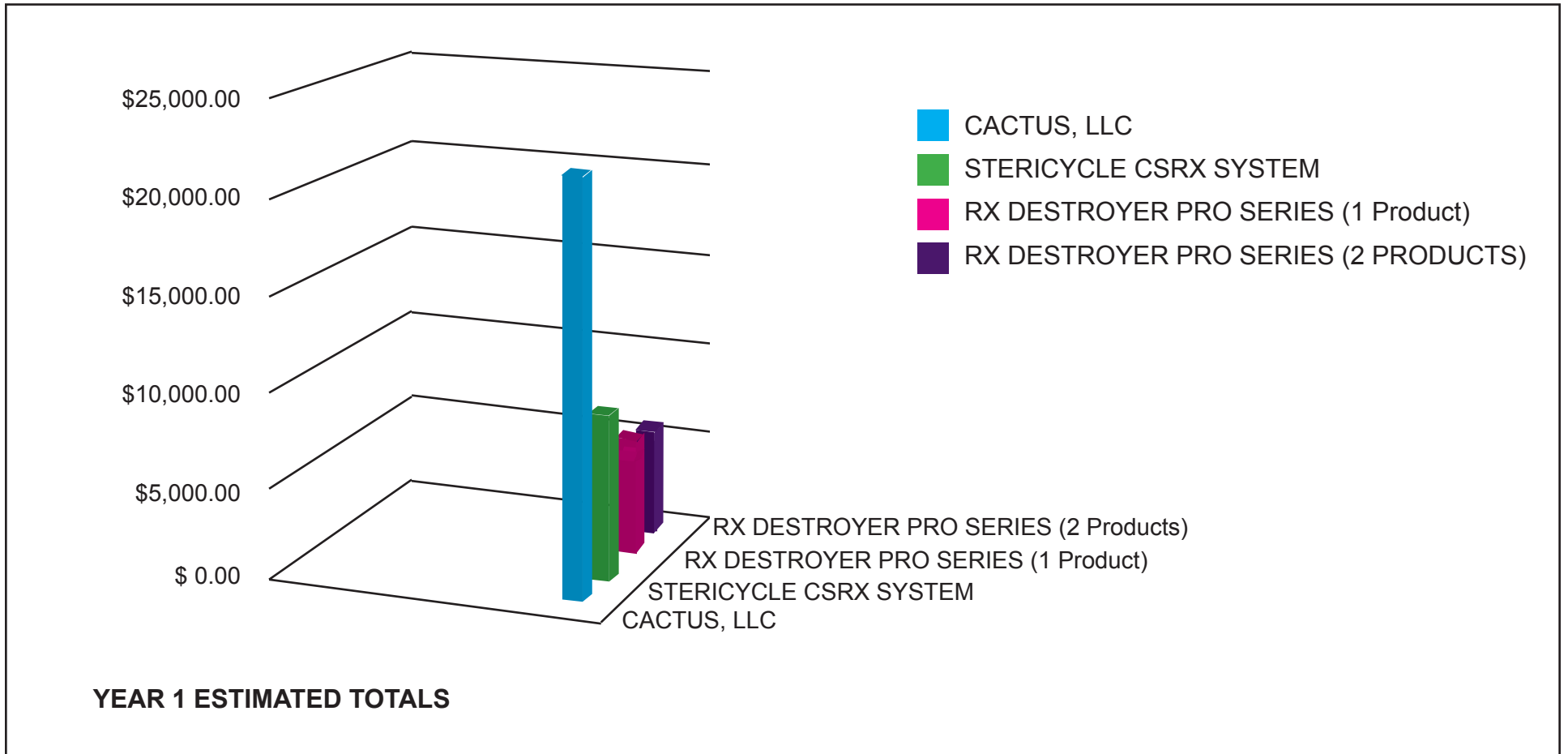
## DEA Controlled Substance Disposition Chart Schedule I - IV



<sup>1</sup> Returns must be recyclable, re-dispensable, and reusable. If not, or if package is opened or compromised, proceed to drug wasting.

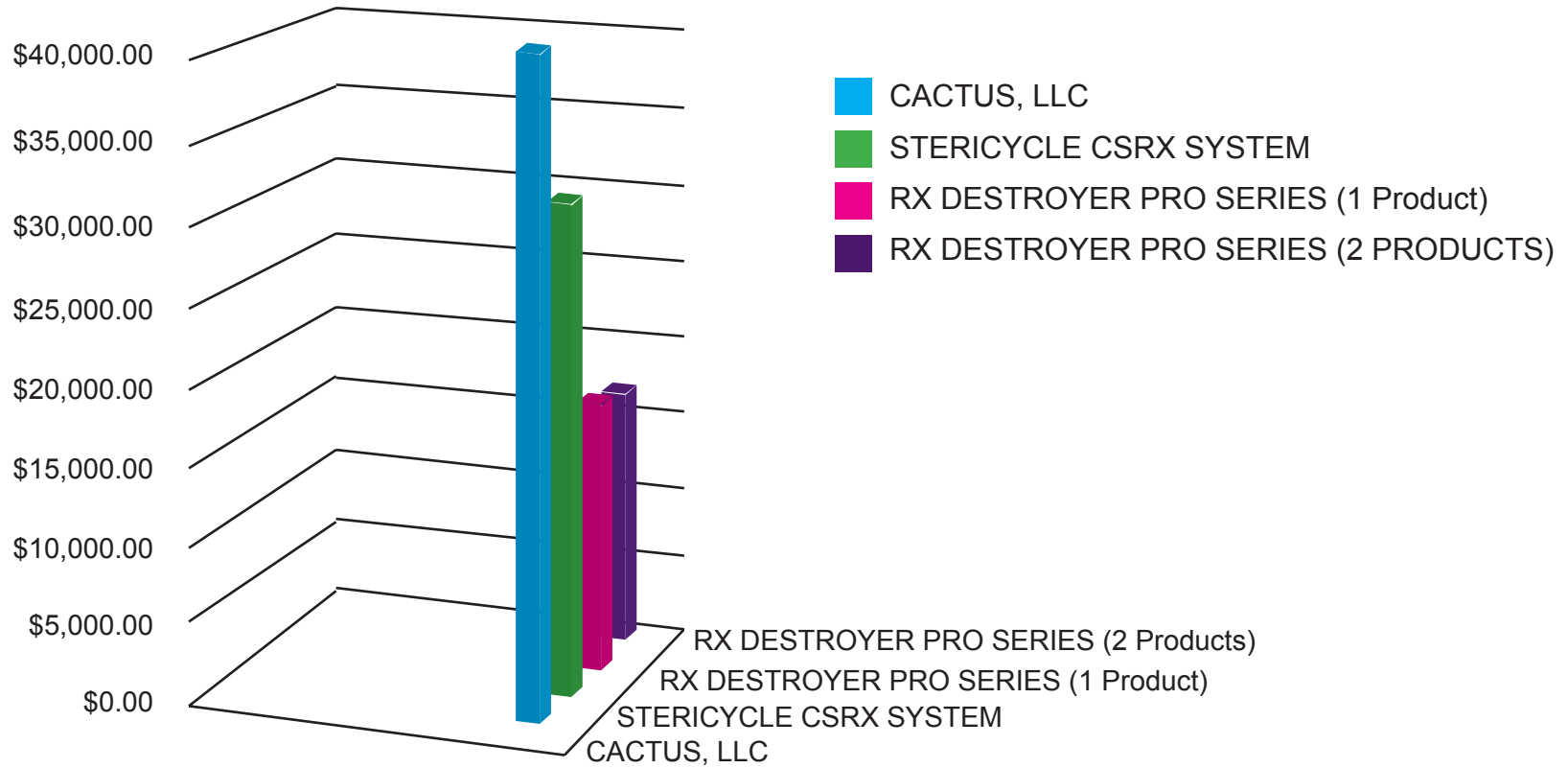
<sup>2</sup> See list of controlled substances that are also D001 Flammable EPA hazardous wastes.

#### 4. Financial Comparison



### THREE YEAR ESTIMATED EXPENDITURE

CACTUS, LLC	\$38,840.18
STERICYCLE CSRX SYSTEM	\$29,091.00
RX DESTROYER PRO SERIES (1 Product)	\$15,983.29
RX DESTROYER PRO SERIES (2 PRODUCTS)	\$16,004.94



THREE YEAR ESTIMATED EXPENDITURE



**CACTUS, LLC**

	<b>KMCC</b>	<b>SCMCC</b>	<b>Combined Total</b>
1 Year	\$10,781.31	\$11,289.59	\$22,070.90
2 Year	\$4,011.60	\$4,373.04	\$8,384.64
3 Year	\$4,011.60	\$4,373.04	\$8,384.64
<b>3 Years Total</b>	<b>\$18,804.51</b>	<b>\$20,035.67</b>	<b>\$38,840.18</b>

**STERICYCLE CSRX SYSTEM**

	<b>KMCC</b>	<b>SCMCC</b>	<b>Combined Total</b>
1 Year	\$4,404.00	\$4,701.00	\$9,105.00
2 Year	\$4,848.00	\$5,145.00	\$9,993.00
3 Year	\$4,848.00	\$5,145.00	\$9,993.00
<b>3 Years Total</b>	<b>\$14,100.00</b>	<b>\$14,991.00</b>	<b>\$29,091.00</b>

**RX DESTROYER PRO SERIES (1 Product)**

	<b>KMCC</b>	<b>SCMCC</b>	<b>Combined Total</b>
1 Year	\$2,628.97	\$2,943.57	\$5,572.54
2 Year	\$2,303.95	\$2,901.82	\$5,205.77
3 Year	\$2,303.95	\$2,901.82	\$5,205.77
<b>3 Years Total</b>	<b>\$7,236.87</b>	<b>\$8,747.21</b>	<b>\$15,984.08</b>

**RX DESTROYER PRO SERIES (2 Products)**

	<b>KMCC</b>	<b>SCMCC</b>	<b>Combined Total</b>
1 Year	\$2,830.82	\$2,915.52	\$5,746.34
2 Year	\$2,522.30	\$2,607.00	\$5,129.30
3 Year	\$2,522.30	\$2,607.00	\$5,129.30
<b>3 Years Total</b>	<b>\$7,875.42</b>	<b>\$8,129.52</b>	<b>\$16,004.94</b>