### MODULE 15

# **Taining**

### DANIELS ACADEMY TRAINING











# Department of Transportation Regulated Medical Waste HazMat Training

49 CFR 172.700 Subpart H







# Table of Contents

- **General awareness/familiarization training** | To provide familiarity with DOT regulations for shippers and recognize and identify hazard materials
- **Function-specific training** | Specifically related to the function the employee performs
- 3
- **Safety training** | Emergency response information and measures to protect employees



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**Security awareness training** Enhance security and how 4 to recognize and respond to threats In-depth security training | If required to have a security



plan, must be trained on it. Testing





# Training Requirements

### **OSHA**, **EPA**, and other Training

Training conducted by employers to comply with the hazard communication programs required by the Occupational Safety and Health Administration of the Department of Labor (29 CFR 1910.120 or 1910.1200) or the Environmental Protection Agency (40 CFR 311.1), or training conducted by employers to comply with security training programs required by other Federal or international agencies, may be used to satisfy the training requirements in paragraph (a) of this section to the extent that such training addresses the training components specified in paragraph (a) of this section.



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#### **Initial & Recurrent training**

- Initial training: A new hazmat employee, or a hazmat employee who changes job functions may perform those functions prior to the completion of training provided....
- The employee performs those functions under the direct supervision of a properly trained and knowledgeable hazmat employee; and
  - The training is completed within 90 days after employment or a change in job function.

**Recurrent training:** A hazmat employee shall receive the training required by this subpart at least once every three years.

# Training Requirements

#### **Record Keeping**

A record of current training, inclusive of the preceding three years, in accordance with this section shall be created and retained by each hazmat employer for as long as that employee is employed by that employer as a hazmat employee and for 90 days thereafter.



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#### The certification shall include:

- The hazmat employee's name;
- The most recent training completion date of the hazmat 2 employee's training;
- A description, copy, or the location of the training materials used 3 to meet the requirements in paragraph (a) of this section;
- 4
- The name and address of the person providing the training; and



Certification that the hazmat employee has been trained and tested, as required by this subpart.



### **General Awareness / Familiarization Training**

Each hazmat employee shall be provided general awareness/ familiarization training designed to provide familiarity with the requirements of this subchapter (49 CFR 172), and to enable the employee to recognize and identify hazardous materials consistent with the hazard communication standards of this subchapter (49 CFR 172),







### **Regulatory Overview**





Department of Transportation

Title 49 CFR

Concerned with safe movement of materials



Environmental Protection Agency

Concerned with safe disposal/treatment to protect environment



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### **EPA**

Title 40 CFR



**OSHA** 

Occupational Safety & Health Administration

Title 29 CFR

Concerned with safe handling to protect employees

### **Department of Transportation**

### The mission of the Federal Motor Carrier Safety Administration (FMCSA) is to improve truck safety on our nation's highways.

That includes reducing the number of transportation incidents that involve hazardous materials and could potentially harm the public and the environment. Developing programs to accomplish these goals and increase the safety of hazardous material transportation is the responsibility of the FMCSA Hazardous Materials (HM) Program.





### **Environmental Protection Agency**

### The mission of the EPA is to protect human health and safeguard the natural environment – air, water, and land – upon which life depends.

The EPA works to develop and enforce regulations that implement environmental laws enacted by Congress.







# The mission of the Occupational Safety and Health Administrations (OSHA) is to assure safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education and assistance."

#### What is covered in 29 CFR 1910.1030?

- OSHA Bloodborne Pathogens Standard
- This section applies to all occupational exposure to blood or other potentially infectious materials
- Specifically referencing the handling of Regulated Medical Waste



to blood or other potentially infectious materials Medical Waste

### Why are you here?

				S
Compliance	Safety	Certification	Inspection	Avoid Fines
To ensure you are in compliance with training regulations.	To protect workers handling wastes.	DOT has very strict training regulations and they require certification.	Other regulatory bodies also ask for training during inspections.	DOT can enforce its regulations with very large fines.



# Who Needs Hazmat Training?

**US DOT "hazmat employee" training rules apply to any company with employees** who perform any function which is in any way regulated by the US DOT Hazardous Materials Regulations (HMR). This includes any organization with employees who:

- Offer hazardous materials for transportation;
- Package, mark, or label hazardous materials for transportation; Sign off on DOT Hazmat shipping papers
- Load or unload hazardous materials transport vehicles;
- Transport hazardous materials;

#### There are no exemptions provided for small companies.

Even self-employed people who ship hazardous materials as part of their job must be certified.



Receive and forward packages containing hazardous materials; 

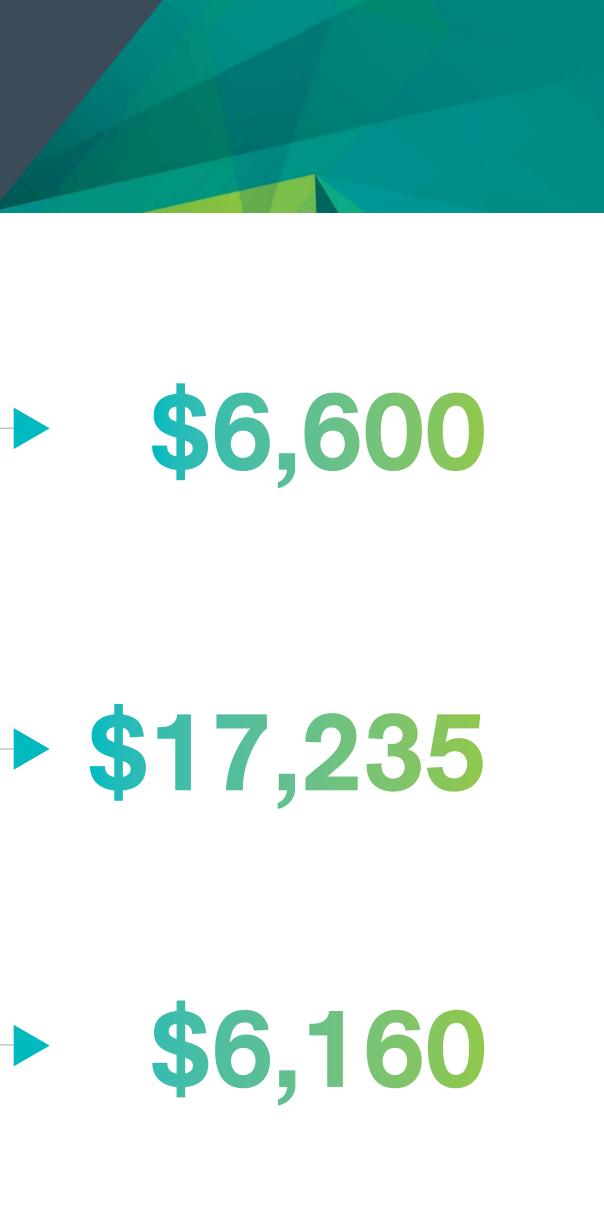
# **Common Violations**

Failed to provide general awareness, function-specific, security awareness, and in depth security initial or refresher training was not conducted; offered regulated medical waste, n.o.s., 6.2, accompanied by shipping papers that did not contain (1) the proper shipping description, (2) a shipper's certification and (3) an emergency response telephone number listed on the shipper paper. [172.200(a) 172.604(a)(1); 172.204(d); 173.24; 172.101, 172.200(a); 172.301(a); 172.400(a); 173.604.] Case No: 10-0011-SBD-CE

Offered regulated medical waste, 6.2 in inner packagings that were not closed as required and offered sharps in inner plastic bags; offered sharps in roll-on cart bulk containers with no inner packaging; offered regulated medical waste, 6.2 in unauthorized inner packagings that were not manufactured in accordance with ASTM standards. [173.197(e)(1)(i) and (e)(3), 173.22(a)(2)] Case No. 04-378-SBG-EA

Offering regulated medical waste when the inner packages were not securely closed resulting in loose material within the bulk outer package; offering regulated medical waste in a bulk outer package when the inner packages were not marked and certified to the ASTM standards. [173.197(d)(3)(v), 173.197(e)(1)(ii), 173.197(e)(1)(i), and 173.22(a)(2)] Case No. 05-0172- SBG-EA

Maximum Penalty: For hazmat training violations, the penalty can be up to \$471 per day, per employee. For non-training hazmat violations, the maximum civil penalty can be up to \$78,376 per day, per violation.



### **Function Specific Training**

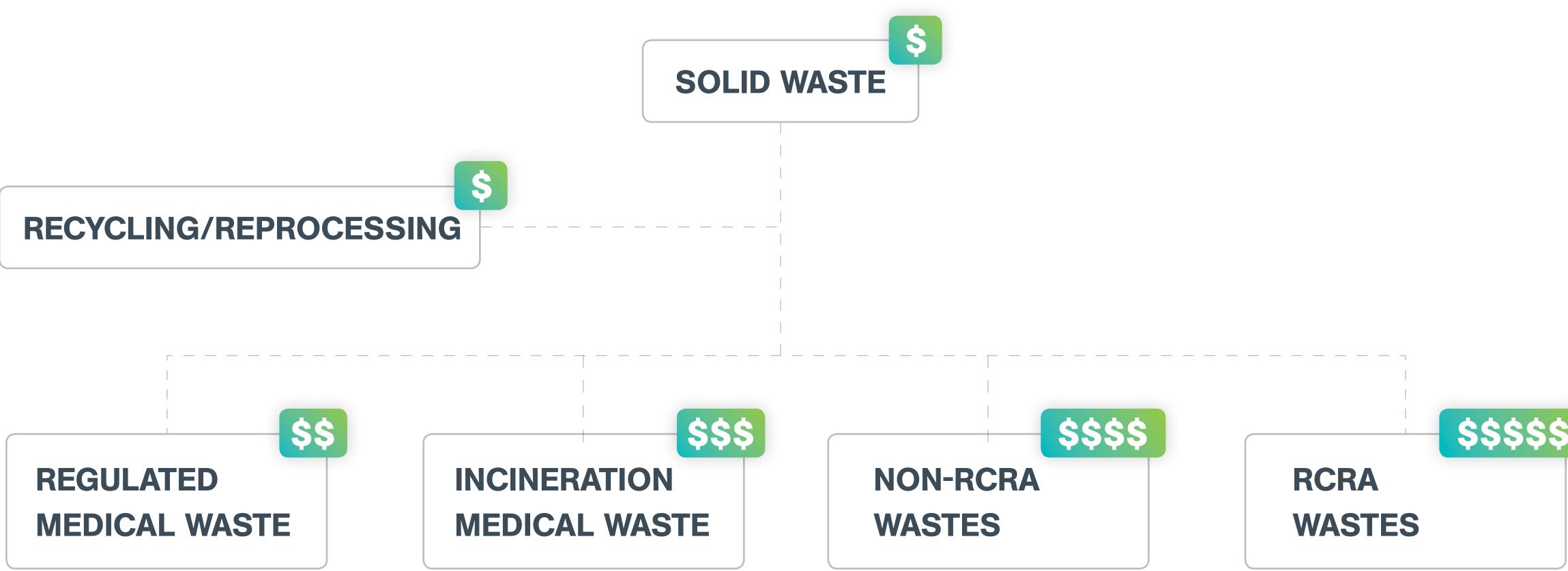
- Each hazmat employee must be provided function-specific training concerning requirements of this subchapter, or exemptions or special permits issued under subchapter A of this chapter, that are specifically applicable to the functions the employee performs.
- As an alternative to function-specific training on the requirements of this subchapter, training relating to the requirements of the ICAO Technical Instructions and the IMDG Code may be provided to the extent such training addresses functions authorized by subpart C of part 171 of this subchapter







### Hierarchy of Regulated Wastes







## DOT Classification

- A DOT hazardous material classification is applied if a material, in a particular amount and form, poses a risk to health, safety or property. These classifications also provide information for first responders in the event of an emergency.
- for Infectious substances



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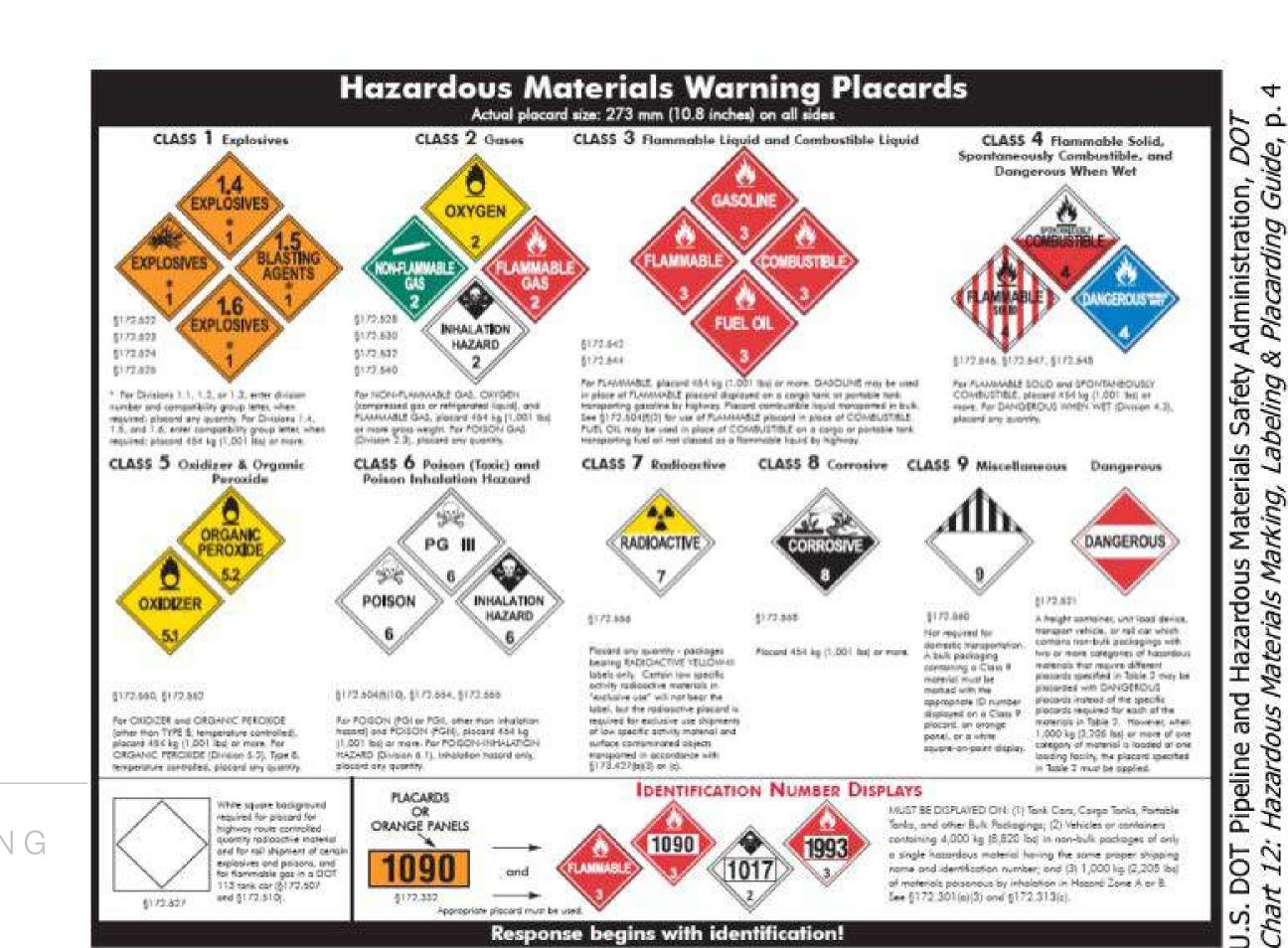


### **Regulated Medical Waste can be found under hazard class and division 6.2**

### Hazardous Materials Warning Placards

# The Department of Transportation recognizes **9 different classes** and multiple divisions of hazardous materials.





## **Regulated Medical Waste**

A waste or reusable material derived from the medical treatment of an animal or human, which includes diagnosis and immunization, or from biomedical research, which includes the production and testing of biological products. **Regulated Medical Waste §173.134(a)(5)** 

Regulated Medical Waste (RMW) containing an Infectious Substance (Category A or Category B) are classified differently than RMW and are subject to different regulations under the HMR

**REVISED AS OF OCTOBER 1, 2006 Category A / Category B** 





# Drip-able, Pour-able, Flake-able

#### **OSHA 29 CFR 1910.1030 (b) defines Regulated Medical Waste:**

- Liquid or semi liquid blood or other potentially infectious materials (OPIM);
- Contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed;
- Items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling;
- Contaminated sharps;
- Pathological and microbiological wastes containing blood or other potentially infectious materials;
- Make sure to check local/state regulations.
- Use Universal Precautions







### Infectious Substances

#### **CATEGORY A**

An infectious substance which is transported in a form that, when exposure to it occurs, is capable of causing permanent disability, life-threatening or fatal disease in otherwise healthy humans or animals.

**Examples :** Ebola virus, Lassa Virus, Variola virus, West Nile virus (cultures only) (not all inclusive)

**Classificaton :** UN 2814 Infectious Substance, Affecting Humans or UN 2900 Infectious Substance, Affecting Animal only



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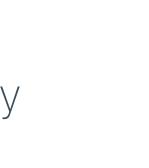
#### **CATEGORY B**

Infectious substances which are known or are reasonably expected to contain pathogens and which are shipped for diagnostic or investigational purposes.

**Examples :** Tissue samples, serum specimens for testing, (not all inclusive)

Classification : UN 3373 Biological Substance, Category B







### Sharps Waste

### **OSHA defines a sharp as any contaminated object that can penetrate the skin. This includes:**

- Needles
- Scalpels
- Broken glass
- Broken capillary tubes
- Blades & razors
- Exposed ends of dental wires



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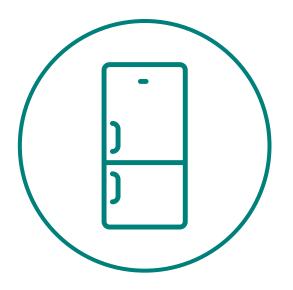
Note: Don't forget to check your state regulations as well.



## Pathological Waste

### Pathological waste is defined as any human or animal body parts. This can include organs, tissues, surgical specimens and bodily fluids removed during surgery or autopsy.

#### PACKAGING / STORAGE / LABELING / TREATMENT



Ensure waste remains in non-putrescent state



If stored in Formalin >10% Methanol, must be treated as Hazardous Waste



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Must be labeled with incineration sticker

Treated through incineration

Note: Don't forget to check your state regulations as well.



# **Trace Chemotherapy Waste**

### Waste generated from the administration of a chemotherapy drug that is 3% or less by volume.

- Gloves
- Gowns
- Swabs, Cotton Balls etc.
- Empty IV bags, tubing
- Empty syringes & vials







# **Trace Chemotherapy Waste**

### **Segregation is key:**

- Regulated Medical Waste Trace Chemotherapy Waste
- RCRA Hazardous Waste Bulk Chemotherapy Waste
- Manifest: Medical Waste Manifest
- Labeling: Labeled with "Trace Chemo" sticker -- yellow







### Trace Chemotherapy Waste











# Hazardous Material Shipping Papers

A shipping paper is any shipping document whose purpose is to communicate a hazard and conforms to the requirements of the HMR. Each person who offers hazardous materials for transportation shall describe the hazardous materials on a shipping paper. No carrier may transport a hazardous material unless it is accompanied by a shipping paper. Each hazardous material must be clearly described using the applicable information from the HMT.

#### **Shipping Description**

The acronym "ISHP" spells out the proper sequence of the Shipping Description, as shown: (UN3291, Regulated Medical Waste, 6.2, PGII)

- (I) Identification Number
- (S) Proper Shipping Name
- (H) Hazard Class
- (P) Packing Group



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#### **Other Information**

- Other Information (§172.202)
- Additional Descriptions (§172.203)
- Emergency Response Telephone Number (§172.201(d), §172.604)
- Shippers Certification (§172.204)

### Hazardous Material Shipping Papers

	Daniels Sharpsmart Inc. 5770 N Hix Rd Westland MI 48185	Tel: 734-729-7044 Fax: 734-729-7048	Manifest #: Customer #:	1538302 320 - 2
Baniels	Westiand Ini 40100	For Chemical Emergency Spill, Leak, Fire, Exposure, or Call CHEMTREC Day or Night 1-800-424-9300	Date: Accident	Jul 11, 2018 Wednesday - 809 5 3 8 3 0 2
Generator: itate ID No.: 18-G-002	04	Carrier: Daniels Sharpsmart, Inc. 111 W Jackson Blvd Suite 1900 Chicago, IL 60604 312-546-8900	Transporter F IL - #M9059 MI - N/A US DOT # 12950	IA - N/A OH - #00-T-00278 WI - #15412
) -			Vehicle Decal:	
Destination Facility: Daniels Sharpsmar, Inc 5770 N Hix Rd Westland, MI 48785 734-729-7044 Permit # Reg #45358 Cert #5186	12035 Chandler Drive Walton KY 41094 Phone: 1 859-493-0051	ty: Alternate Destii Curtis Bay Energy 3200 Hawkins Poin Baltimore, MD 212 Phone: 410-354-3228 Permit #: 2005-WMI-0036	t Road	Transfer Facility: Daniels Sharpsmart, Inc. 211 Hayes Dr Brooklyn Heights, OH 441: 734-729-7044
Vaste Collected: UN 32	91 Regulated Medical Waste n.o.s 6.2 P			
ype Qty Net Wt.	Type Qty Net Wt. Type	Material T Qty Net Wt. (Circle On	ype le Per Line)	Totals
Site       Site       Site         Site       Site	S14PH S22PH S22PHA+ S32PHA+ S32PHA+ S32PHA+ S32PHA+ S64PHA+ C64 S64PHA+ C64 S64PHA+ S74PHA+ S74PHA+ S74PHA+ S74PHA+ S74PHA+ S74PHA	1       25       Bio / Path         1       383       Bio / Path         1       383       Bio / Path         1       383       Bio / Path         1       Bio / Path       Bio / Path         1       Bio / Path       Bio / Path         1       Bio / Path       Bio / Path         2001/5       Bio / Path       Bio / Path         3ag       Surgical B       Bio / Path         MED)       PLN LAB       Notes Con	/ Pharm / Chemo / Pharm / Chemo	Total RMW Containers: 23 Estimated Gross Wt (at pickup): 1450 RMW Actual Net Wt: 722,5
San end tor Certification:	I hereby declare (\$100 the content of his con classified, packed, marked, and labeled, an	signment are fully and accurately descr d are in all aspects in proper condition f	ibed above by proper or transport according	shipping name and are to applicable government
	and ulations	is free of hazardous and mercury waste		
enerator (Customer):	andror propriate state une and regulato	Mickey Mouse	7	lulio
oute Driver:	Name of authorized person (print):	R Signature	Date 7	14/18
f Applicable)	Name of authorized person (print)	Signature	Date	
ransfer Driver:	Name of authorized person (print)	Signature	Date	
and the set the second	Certification of receipt of waste as covered by	l'Atamtan	7/11/	8
Certificate of Receipt:	Name of authorized person (print) Certification of receipt and destruction of wa	Signature ste as covered by this manifest number	Date	
	A Plan ald a	Pitantin	7/12/	18
ertificate of Destruction	L MANTM	CARDINOT		
Certificate of Destruction:	Name of authorized person (print)	Signature	Date Gold	



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The person signing this shipping paper is verifying that the shipment meets all hazmat regulations for transport.

Logically, it must be someone who can be proven to have received hazmat training.

### **Safety Training**

#### Each hazmat employee shall receive safety training concerning...

- ► Emergency response information required by subpart G of part 172;
- Measures to protect the employee from the hazards associated with hazardous materials to which they may be exposed in the workplace, including specific measures the hazmat employer has implemented to protect employees from exposure; and
- Methods and procedures for avoiding accidents, such as the proper procedures for handling packages containing hazardous materials







### **Personal Protective Equipment (PPE)**

PPE is defined as specialized clothing or equipment worn by an employee for protection against infectious materials (OSHA)

- **Gloves** protect hands
- **Gown/Aprons** protect skin and/or clothing
- Masks & Respirators protect mouth/nose



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- **Respirators** protect respiratory tract from airborne infectious agents
- **Goggles** protect eyes
- **Face shields** protect face, mouth, nose, and eyes

Note: Make sure to check your facility's policy on PPE Requirements.















Although RMW is by definition **an infectious substance**, it does not fall under the packaging requirements for infectious substances because of an exception found in **Part 173.** Therefore...

#### **RMW Containers (non-bulk)**

- UN Standard Packaging
- Packaging Group II Performance Level
- Leak-resistant
- Closable (Securely contain all contents inside)
- Labeled or Color Coded





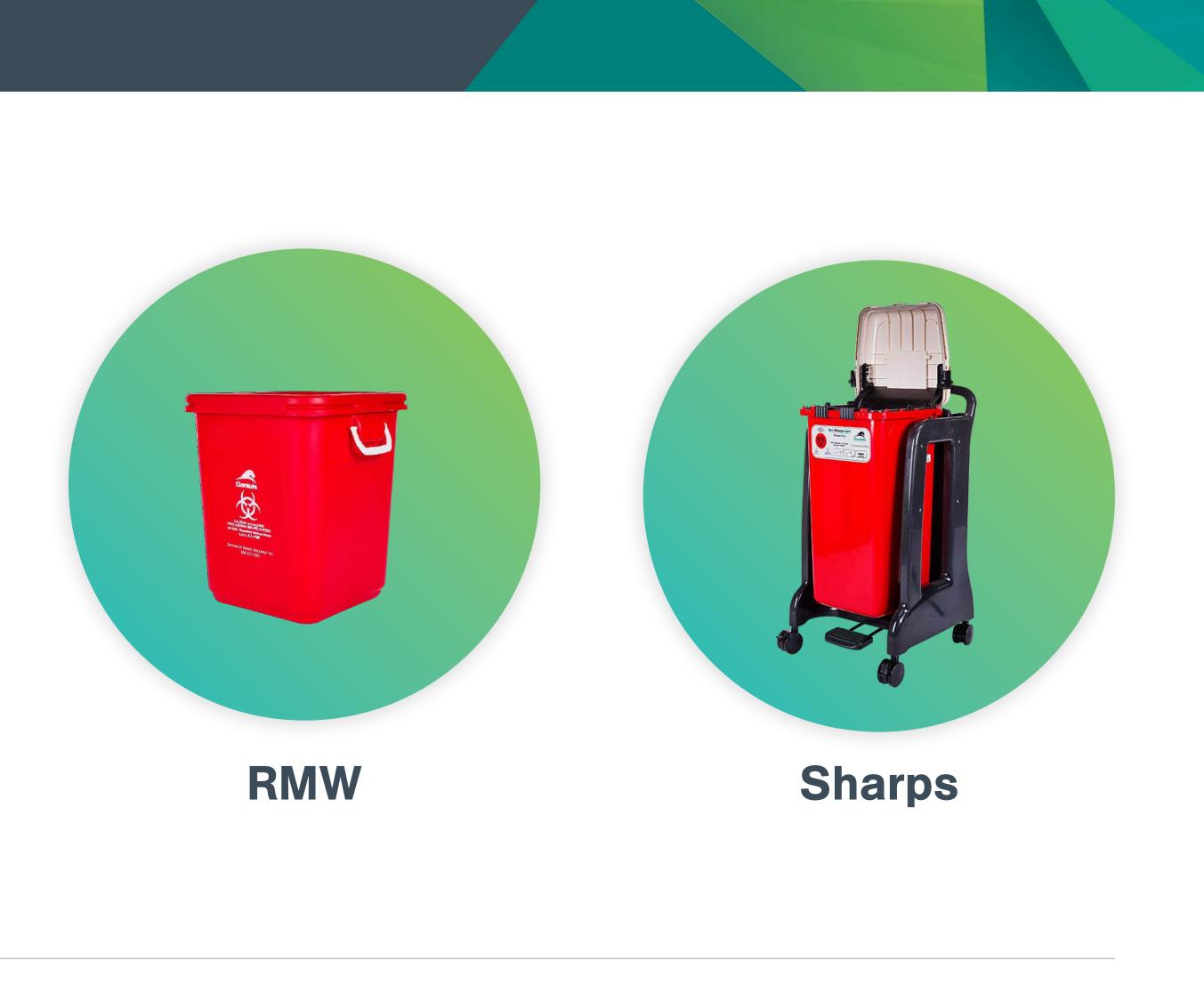
#### **Sharps Containers**

- UN Standard Packaging (Performance Tested Part 178, Subpart M)
- Packaging Group II Performance level
- Puncture Resistant
- Leak-resistant
- Closable Securely contain all contents inside and prevent punctures
- Labeled or color coded

### Packaging

- Regulated medical waste must be in containers that are appropriate for the type and quantity of waste.
- They must be securely closed and withstand handling and transportation while maintaining container integrity.





## **Sharps Container Testing**

#### Part 178, Subpart M: Specifications for Packaging, Performance - Orientated Standards





Hydrostatic pressure test, 3



Stacking test,



Vibration test







### Proper Packaging





1. Open lid of reusable medical waste container 2. If using liner, install by folding over top edges



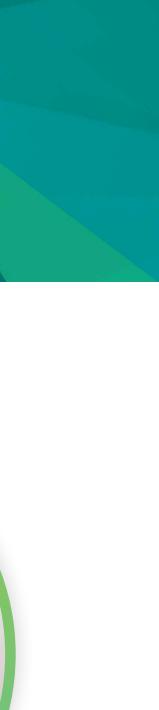
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**3.** Fill with medical waste

**3a. If not using liner,** fill with medical waste that is in tied/ sealed bags only



### Proper Packaging





**4.** Insert filled sharps containers that are sealed and securely locked

4a. If not using liner, insert filled sharps containers that are sealed and securely locked



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**5.** If using liner, seal by twisting and hand-tying into a single knot

6. Close lid securely and store in waste storage area ready for collection



## **Proper Packaging**

### **IMPORTANT 49 CFR 173.197 (E)**

- RMW liners may not exceed a volume of 46 gallons.
- Must be closed with a minimum of entrapped air to prevent leakage in transportation
- Secure the liner with a strong, hand tied single or gooseneck knot to prevent leakage. Ensure the bag is completly closed and secure.





### Manufacturer Liner Testing

#### SEC. 173.197

- impact resistance in ASTM D 1922-00a, Standard Test Method for Propagation Tear Resistance of Plastic Film and Thin Sheeting by Pendulum Method
- perpendicular planes with respect to the length of the bag
- Bag supplier should provide testing certification if necessary



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The film bag must be marked and **certified by its manufacturer** as having passed the tests prescribed for tear resistance in ASTM D 1709-01, Standard Test Methods for Impact Resistance of Plastic Film by the Free-Falling Dart Method, and for

The film bag must meet an impact resistance of 165 grams and a tearing resistance of 480 grams in both the parallel and

## Manufacturer Liner Testing

### It is important to remember that it is the generator's responsibility to be able to provide documentation of testing.



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September 17, 2015

Kyle Little Daniels Sharpsmart 111 W. Jackson Blvd. Chicago, IL 60604

Dear Kyle,

This letter is to certify that the biohazard waste disposal bags produced by Champion Plastics for Daniels Sharpsmart are manufactured to meet the following properties:

Impact resistance of 165 grams and tear resistance of 480 grams in both parallel and perpendicular planes with respect to the length of the bag. Impact resistance shall be determined using ASTM D-1709-01 and tear resistance shall be determined using ASTM d-1922-00A.

Respectfully

Quality Control Manage

JE/rmz

### CHAMPION PLASTICS







## Category A, B Infectious Substances

### **Category A & B Infectious Substances must be tripled packaged as follows:**

### **Primary receptacle**

A primary watertight, leak-proof receptacle containing the specimen. The receptacle is packaged with enough absorbent material to absorb all fluid in case of breakage.

### **Secondary packaging**

A second durable, watertight, leak-proof packaging to enclose and protect the primary receptacle(s).

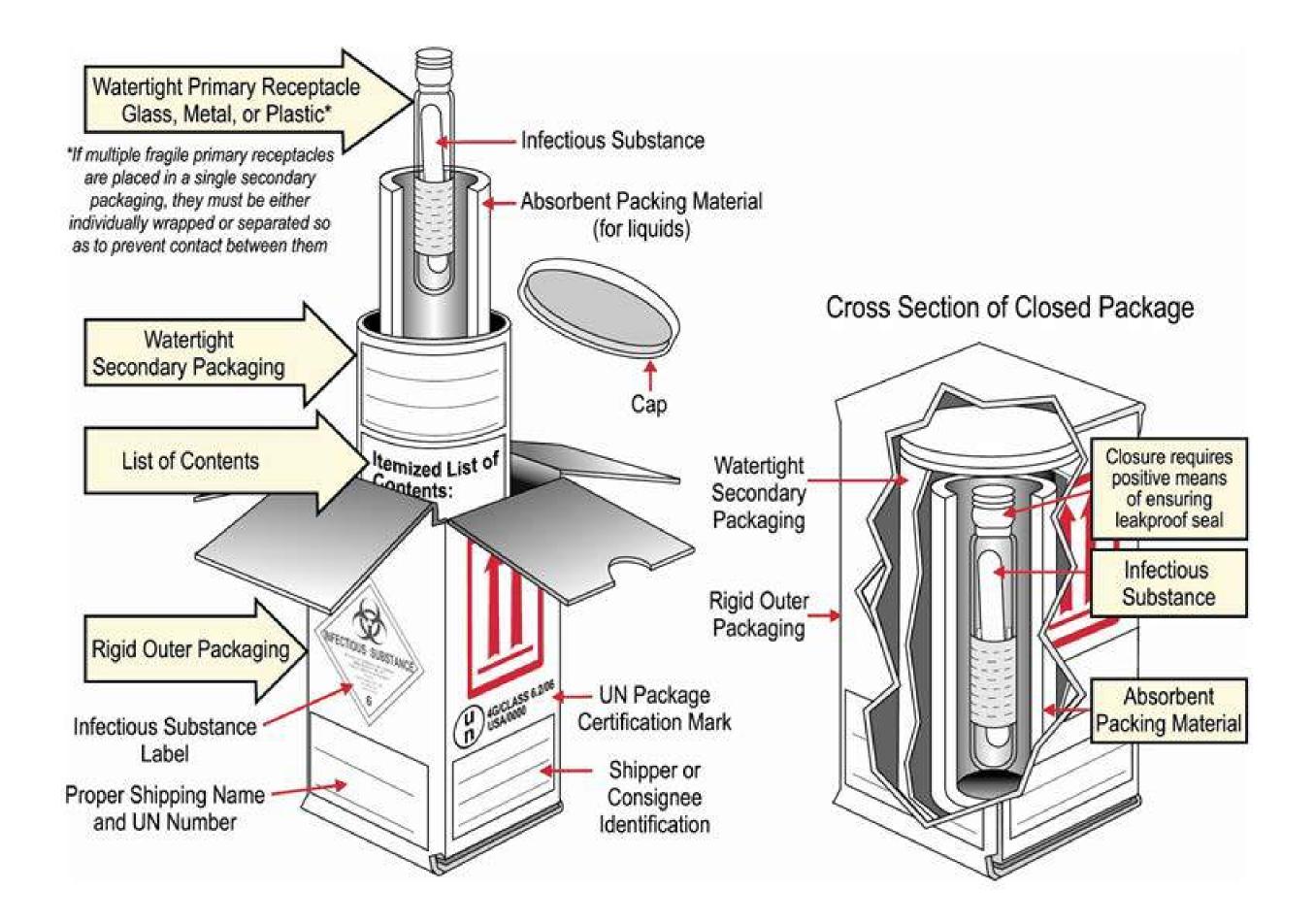
### **Outer packaging**

Secondary packagings are placed in rigid outer shipping packagings with suitable cushioning material.



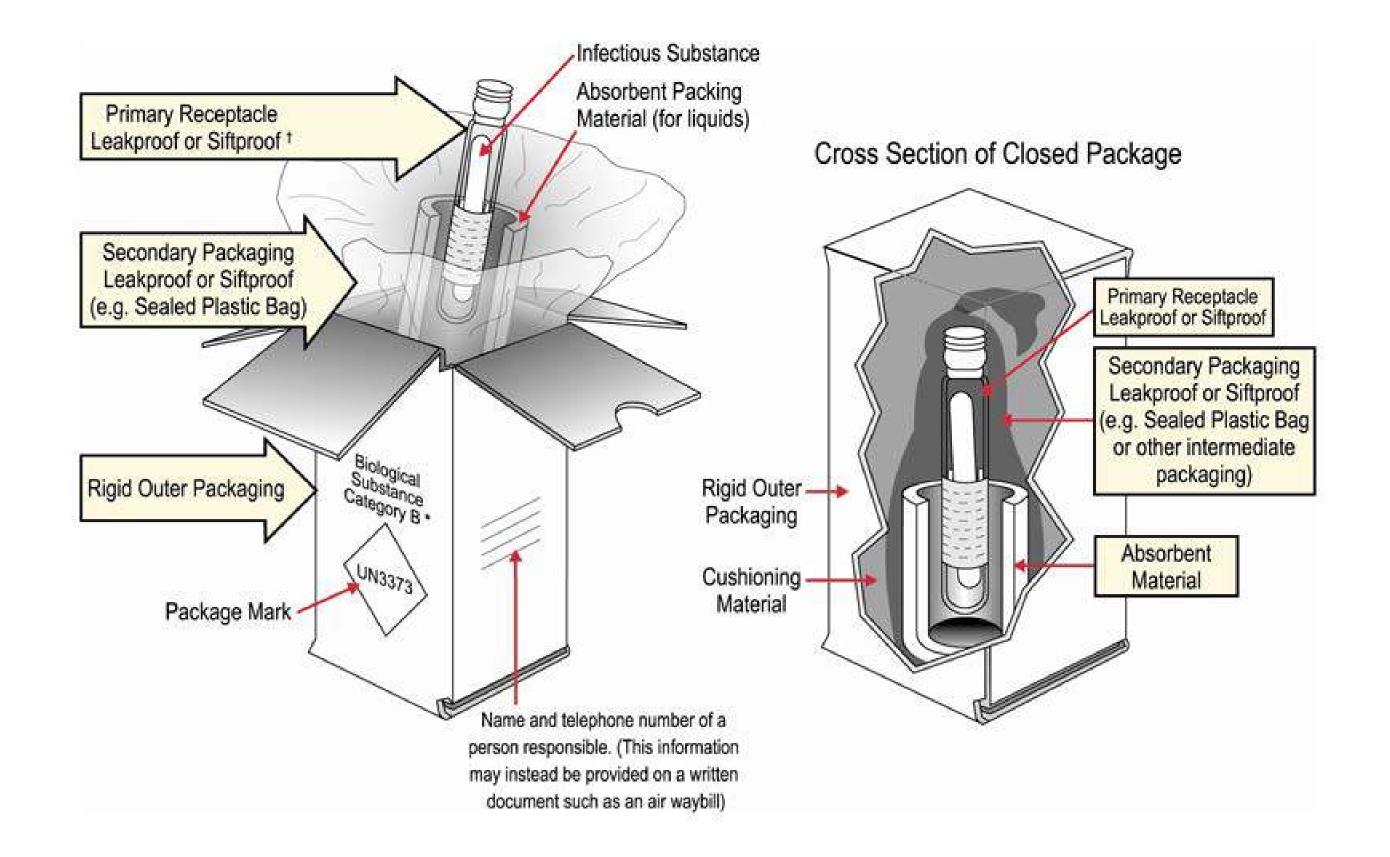


## Category A Packaging





## Category B Packaging





## Packaging Mistakes





























# **Regulated Medical Waste (BIO) Label**

Regulated Medical Waste that is a **Category A Infectious Substance** must be labeled under Category A requirements.

Regulated Medical Waste that is a Category B Infectious Substance can be labeled with a BIOHAZARD symbol under RMW requirements in accordance with **29 CFR 1910.1030.** 







### **Security Awareness Training**

No later than the date of the first scheduled recurrent training after March 25, 2003, and in no case later than March 24, 2006, each hazmat employee must receive training that provides an awareness of security risks associated with hazardous materials transportation and methods designed to enhance transportation security. This training must also include a component covering how to recognize and respond to possible security threats. After March 25, 2003, new hazmat employees must receive the security awareness training required by this paragraph within 90 days after employment.







## Security Awareness Training

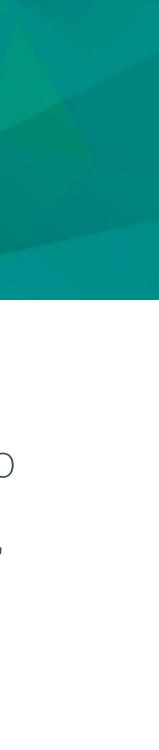
This training relates to security risks associated with the transportation of hazardous materials and the methods designed to enhance transportation security. While many hazardous material shipments are not normally subject to these requirements, the DOT has specified that all hazmat employees receive security awareness training.

### You must know how to recognize and respond to possible security threats.

- Partner with a credible carrier
- Request all permits and transport related licenses
- Ask for ID when necessary

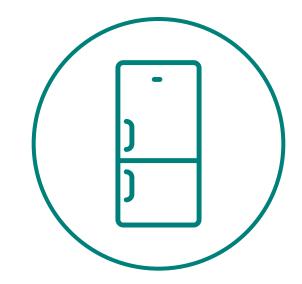


- Report all suspicious activities
- Keep all Hazmat storage areas locked
- Develop and Review Security Plan



## **Storage** | Best Management Practices





### Identify the area (signage)

### Waste remains in non-putrescent state



Note: Check with state and local regulations for additional storage requirements





### Locked and secured

Whenever staff not present

Protected from the elements





### **In-Depth Security Training**

By December 22, 2003, each hazmat employee of a person required to have a security plan in accordance with subpart I of this part must be trained concerning the security plan and its implementation.

Security training must include company security objectives, specific security procedures, employee responsibilities, actions to take in the event of a security breach, and the organizational security structure.







## In-Depth Security Training

- Each person who offers for transportation in commerce or transports in commerce one or more of the hazardous materials in § 172.800 (b) must develop and adhere to a transportation security plan for hazardous materials that conforms to the requirements of this subpart.
- Regulated Medical Waste or Infectious Substances does not apply
- Check appropriate regulations for Hazard Classes requiring an in-depth security plan







### The US DOT Regulates the transportation of Regulated Medical Waste to ensure that:

- Waste is properly **identified and classified**
- Waste is packaged so as to keep it **safe during transport**
- **Employees packaging the waste** are trained in associated risks
- **Employees who sign the shipping papers** are properly trained
- The materials are stored in a **secured area** minimizing security threats
- Requirements on Regulated Medical Waste may vary state to state. Go to danielshealth.com/state-rmw-regulations to see yours!



# Questions?





