Reality vs. Regulations:
A Practical Guide to International Shipments of Dangerous Goods

Vitaly Volfson, CHMM
Tianjin Port Explosion, August 12-15, 2015

- 114 Confirmed Dead, 57+ Missing as of 8/17/15
- 1.2 Mile Damage Radius
- 30 MT TNT Equivalent Blast
- Cause unknown, but originated at a chemical warehouse in the port area
Mark and Label Packages As Required
Call Your Trucking Company To Pick Up The Shipment
Load, Block and Brace the Shipment
Provide and Affix the Appropriate Placards
Complete and Sign the Multi-Modal Dangerous Goods Form

MULTIMODAL DANGEROUS GOODS FORM

1. Shipper/Consignee/Carrier
   W.R. Grace
   75 Market Street
   Edison, NJ 08818
   USA

2. Transport document number
   1032

3. Page of 1

4. Shipping volume
   08/02/2016

5. Freight forwarder: reference
   1520202167

6. M/V November
   1541709

7. Vessel no. and dates
   SCA.COM M/V MJAPRAN
   07/24/2015

8. Port of discharge
   Jebel Ali

9. Port of loading
   New York, NY

10. Port of discharge
    Jebel Ali

11. Port of loading
    New York, NY

12. Additional handling information
    Emergency telephone 24 Hours call
    Other contact 091.701.127.7227 (urgent call accepted)

13. Declaration
    This declaration is to be used for the transmission of hazardous materials. It is intended to be used for the conveyance of hazardous materials.

<table>
<thead>
<tr>
<th>SKU</th>
<th>Description</th>
<th>Gross Mass (kg)</th>
<th>Net Mass (kg)</th>
<th>Cubes (m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TPF 17%</td>
<td>0.205700</td>
<td>0.049200</td>
<td>1.30</td>
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</tbody>
</table>

14. Container identification: / Seal number(s)
   15. Cargo type
   16. Tank container
   17. Flat container
   18. Reef container
   19. Special container
   20. General cargo
   21. Refrigerated container
   22. Flammable gas
   23. Flammable liquid
   24. Flammable solid
   25. Oxygen
   26. Oxidizer
   27. Poisonous gas
   28. Poisonous liquid
   29. Poisonous solid
   30. Radioactive material
   31. Infectious substance
   32. Other dangerous goods

23. Name of company:Grace
24. Name of company: W.R. Grace
25. Name of company: W.R. Grace
26. Name of company: Vitaly Volfovich Logistics Coordinator
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Wave Goodbye
Bon Voyage
Export Process Overview

Prepare Shipment

Load Shipping Container

Complete Shipping Papers

Deliver to Port

What Can Go Wrong?
Shipment Preparation

Starts on **manufacturing floor** or even in planning stages:

• Where will the product be shipped?
  • Direct overseas shipment, or
  • Intermittent storage at an off site warehouse

• What will happen to the shipment upon arrival at the destination?
  • Delivered directly to the end user, or
  • Delivered to a warehouse for future shipment to end user?

• What types and sizes of packages will be used?
  • Drums, pails
  • IBC’s
  • Portable Tanks
  • Cylinders
  • ISO Tanks
Example:
Suppose you are shipping a hazardous product that also contains a component which is a Marine Pollutant (MP)

- For domestic shipments, the package does not need to be marked with a MP marking.
- For export shipments, the package would need to be marked with a MP marking.

Do you:
A. Mark every package as a MP even if the package may not be exported?
B. Don’t mark any packages as MP at the time of manufacture and add the additional markings only when needed?
C. Know ahead of time if the package will be exported and mark with MP as needed?
What type of package will be used?

- UN Single Use Packages - Generally not an issue. (Drums, Pails, Boxes, Etc) however,
  - Do you have manufacturer's prototype test report?
  - Do you have a specification sheet and closing instructions?
  - Will the receiving county accept the documentation (legible copy, in color, stamped, signed, etc)
  - Are the documents “official” enough?

- Get ready for some fun!
  DOT Cylinders
  Metal IBC’s (UN 21A),
  DOT Portable Tanks (DOT 51)
  UN Portable Tanks (T1-T22)
  Special Permit or Competent Authority Packages
Prepare Shipment

Shipment Booking and pre-approval

Load Shipping Container

Complete Shipping Papers

Deliver to Port
• Shipping Document preparation starts long before the truck arrives. Sometimes before the material is even made or packaged.
• Vessel operators need to receive a preliminary Hazmat Information in order to plan the shipment.
  • What you are shipping,
  • Where is it going
  • Every vessel to be used will pre-approve the shipment
  • Every port that trans-ships the container will pre-approve the shipment
  • The receiving port will pre-approve the shipment
  • Vessel operators must ensure the stowage segregation requirements can be met
• Certain packages may require certification or inspection records (Cylinders, Portable Tanks)
• Usually have to provide initial, and then final documentation at the time of the shipment
Prepare Shipment

Load Shipping Container

Shipment Booking and pre-approval

Complete Shipping Papers

Deliver to Port
Container Loading

- Shipping container should be in good condition.
  - No missing or loose floorboards,
  - no gauges or cuts in the roof,
  - doors are capable of being closed and secured.
- HM must be properly segregated
- Cargo must be properly blocked and braced
Container Loading

Cargo must be properly blocked and braced
Container Loading

Why block and brace the cargo?
Container Loading

Properly Mark and Placard The Shipping Container
Container Loading

NOT Like This
1. Prepare Shipment
2. Load Shipping Container
3. Complete Shipping Papers
4. Deliver to Port

Shipment Booking and pre-approval
• Make sure the number and quantity of packages are correct
• Make sure the shipping description is in proper sequence
• Make sure the Emergency Response phone number, the shippers certification, and other DOT required elements are on the documents.
• Make sure the documents and container packing certificate are signed
• Make sure the shipping description on the product label, matches Section 14 of the SDS and the MMDG shipping document
• Do not change the type of material being shipped without pre-approval from the vessel operator
• Enter the security seal numbers on the shipping documents
• Enter the container number and the required gross, tare and net weights
Deliver To Port

- Deliver at or before required cut-off date and time
- There are always lines at the port
- There are sometimes strikes at ports
- There are incidents at the ports
- There are documentation errors
- Drivers may go to the wrong port by mistake
- There are mechanical equipment issues
- Be prepared to quickly deal with questions and issues
- Be prepared to interface with enforcement officials at the ports
- Be prepared for emergency situations at the ports
Export Process Overview Regulations

Prepare Shipment

Load Shipping Container

Complete Shipping Papers

Deliver to Port
Export Process Overview Reality

Plan Shipment

Obtain Pre-approval and Booking

Finalize Shipping Documents

Complete Preliminary Shipping Documents

Load Shipping Container (Block, Brace, Placard)

Deliver to Port
Summary

• Plan first
• Understand the entire supply chain life-cycle
• Expect questions
• Be ready for changes, rejections, rolled booking, etc
• Documentation is the key
• Have supporting documents available, SDS’s, Packaging certificates, inspection records, etc
• Ensure everything matches: Product Label Matches SDS, and both match the description on the shipping documents
• Anticipate “strange” requests from certain destination ports or country officials
• Provide sufficient training and support to your employees
Questions & Answers