



U.S. Department of Transportation
Research and Special Programs Administration

Hazardous Materials Incident Report

Form Approval OMB No. 3137-0039

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 2137-0039. The filling out of this information is mandatory and will take 96 minutes to complete.

INSTRUCTIONS

Submit this report to the Information Systems Manager, U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration, Office of Hazardous Materials Safety, DHM-63, Washington, D.C. 20590-0001. If space provided for any item is inadequate, use a separate sheet of paper, identifying the entry number being completed. Copies of this form and instructions can be obtained from the Office of Hazardous Materials Website at <http://hazmat.dot.gov>. If you have any questions, you can contact the Hazardous Materials Information Center at 1-800-HMR-4922 (1-800-467-4922) or online at <http://hazmat.dot.gov>.

PART I - REPORT TYPE

1. Incident Id: I-2013010143
2. This is to report: A

PART II - GENERAL INCIDENT INFORMATION

3. Date of Incident: 11/26/2012
4. Time of Incident (use 24-hour time): 11:15
5. Enter National Response Center Report Number (if applicable):
6. If you submitted a report to another Federal DOT agency, enter the agency and report number:
7. Location of Incident:
City: GRAND RAPIDS
County: KENT
State: MI
Zip Code: (if known): 49507
Street Address/Mile Marker/Yard Name/Airport/Body of Water/River Mile:
150 COTTAGE GROVE, SW
8. Mode of Transportation: Highway
9. Transportation Phase: Loading
10. Carrier/Reporter:
Name: BROADMOOR PRODUCTS, INC.
Street: 4201 BROCKTON DR SE
City: Grand Rapids
State: MI
Zip Code: 49512-4051
Federal DOT Id Number: 92131
Hazmat Registration Number: 052112001013UW
11. Shipper/Offendor:
Name: BROADMOOR PRODUCTS, INC.
Street: 4201 BROCKTON DR SE
City: GRAND RAPIDS
State: MI
Zip Code: 49512-4051
Waybill/Shipping Paper: 70964
Hazmat Registration Number: 052112001013UW
12. Origin (if different from shipper address)
Street:
City:
State:
Zip Code:
13. Destination:
Street: 2100 BURLINGAME AVENUE, SW
City: GRAND RAPIDS
State: MI
Zip Code: 49509
14. Proper Shipping Name of Hazardous Material: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
15. Technical/Trade Name: ALUMINUM SULFATE SOLUTION
16. Hazardous Class/Division: Corrosive Material
17. Identification Number: (E.g. UN2764, NA 2020) UN3264

- 18. Packing Group:** (if applicable) III
- 19. Quantity Released:** (Include Measurement Units) 275 Liquid - Gallon
- 20. Was the material shipped as a hazardous waste?** False
If yes, provide the EPA Manifest Number:
- 21. Is this a Toxic by Inhalation (TIH) material?** False
If yes, provide the Hazard Zone:
- 22. Was the material shipped under an Exemption, Approval, or Competent Authority Certificate?** False
If yes, provide the Exemption, Approval, or CA number:
- 23. Was this an undeclared hazardous materials shipment?** False

PART III - PACKAGING INFORMATION

24. Check Packaging Type (check only one - if more than one, list type of packaging, copy Part III, and complete for each type:
IBC

25. See instructions and enter the appropriate failure codes found at the end of the instructions. Be sure to enter the codes from the list that corresponds to the particular packaging type checked above. Enter the number of codes as appropriate to describe the incident.

Enter the most important failure point in line 1. If there are more than two failure points, provide in this format in part VI.

What Failed: - 106-Bottom Outlet Valve
How Failed: - 312-Torn Off or Damaged
Causes of Failure: - Impact with Sharp or Protruding Object (e.g., nails)

26a. Provide the packaging identification markings, if available.

Identification Markings: UN31HG1 UN31HA1 M4119 USA

(Examples: 1A1/Y1.4/150/92/USA/RB/93/RL, UN31H1/Y0493/USA/M9339/10800/1200, DOT - 105A - 100W (RAIL), DOT 406 (HIGHWAY), DOT 51, DOT 3-A)

26b. For Non-bulk, IBC, or non-specification packaging, if identification markings are incomplete or unavailable, see instructions and complete the following:

Single Package or Outer Packaging:	Single Package or Inner Packaging (if any):
Packaging Type: IBC Material of Construction: Metal Head Type (Drums only):	Packaging Type: Material of Construction:
27. Describe the package capacity and the quantity:	
Package Capacity: 275 Liquid - Gallon Amount in Package: 275 Liquid - Gallon Number in Shipment: 2 Number Failed: 1	Package Capacity: Amount in Package: Number in Shipment: Number Failed:
28. Provide packaging construction and test information, as appropriate: Manufacturer: Serial Number: Material of Construction: (if Tank Car, CTMV, Portable Tank, or Cylinder) Design Pressure: (if Tank Car, CTMV, Portable Tank) Shell Thickness: (if Tank Car, CTMV, Portable Tank) Head Thickness: (if Tank Car, CTMV) Service Pressure: (if Cylinder) If valve or device failed: Type: 2" BALL Model: Manufacturer: BANJ	
29. If the packaging is for Radioactive Materials, complete the following: Packaging Category: Packaging Certification: Certification Number: Nuclide(s) Present: Transport Index: Activity: Critical Safety Index:	

PART IV – CONSEQUENCES

30. Result of Incident (check all that apply):

- | | | | |
|---------------------------|-------|--|-------|
| - Spillage: | True | - Fire: | False |
| - Explosion: | False | - Material Entered Waterway/Storm Sewer: | True |
| - Vapor (Gas) Dispersion: | False | - Environmental Damage: | False |
| - No Release: | False | | |

31. Emergency Response: The following entities responded to the incident: (Check all that apply)

Fire/EMS Report #: True 2120322
Police Report #: False
In-house cleanup: True
Other Cleanup: False

32. Damages Was the total damage cost more than \$500?

True

If yes, enter the following information: (If no, go to question 33.)

Material Loss: \$ 722.00
Carrier Damage: \$ 100.00
Property Damage: \$ 0.00
Response Cost: \$ 960.00
Remediation/Cleanup Cost: \$ 0.00

(See damage definitions in the instructions)

33a. Did the hazardous material cause or contribute to a human fatality?

False

If yes, enter the number of fatalities resulting from the hazardous material:

Employees: 0
Responders: 0
General Public: 0

33b. Were there human fatalities that did not result from the hazardous material?

False

If yes, how many? 0

34. Did the hazardous material cause or contribute to personal injury?

False

If yes, enter the number of injuries resulting from the hazardous material:

Hospitalized (Admitted Only):

Employees: 0
Responders: 0
General Public: 0

Non-Hospitalized:

(e.g.: On site first aid or Emergency Room observation and release)

Employees: 0
Responders: 0
General Public: 0

35. Did the hazardous material cause or contribute to an evacuation?

False

If yes, provide the following information:

Total number of general public evacuated:
Total number of employees evacuated:
Total evacuated:
Duration of the evacuation:

36. Was a major transportation artery or facility closed?

False

If yes, how many?

37. Was the material involved in a crash or derailment?

False

If yes, provide the following information:

Estimated speed (mph):
Weather conditions:
Vehicle overturned?
Vehicle left roadway/track?

PART V - AIR INCIDENT INFORMATION (please refer to S 175.31 to report a discrepancy for air shipments)

38. Was the shipment on a passenger aircraft?

If yes, was it tendered as cargo, or as passenger baggage?

39. Where did the incident occur (if unknown, check the appropriate box for the location where the incident was discovered)?

40. What phase(s) had the shipment already undergone prior to the incident? (Check all that apply)

- | | |
|--|--|
| - Shipment had not been transported | - Transported by air (first flight) |
| - Transport by air (subsequent flights) | - Initial transport by highway to cargo facility |
| - Transfer at sort center/cargo facility | |

PART VI - DESCRIPTION OF EVENTS & PACKAGE FAILURE

- Describe the sequence of events that led to the incident and the actions taken at the time it was discovered. Describe the package failure, including the size and location of holes, cracks, etc. Photographs and diagrams should be submitted if needed for clarification. Estimate the duration of the release, if possible. Describe what was done to mitigate the effects of the release. Continue on additional sheets if necessary.

Describe:

The incident took place at the third delivery stop of the morning of 11/26/12. The spilled material was one of two 275 gallon totes of Moor Floc 5401. The proper shipping name of this material is UN3264, Corrosive Liquid, Acidic, Inorganic, NOS (contains Aluminum Sulfate). The product was intended for delivery to the second delivery address at 2100 Burlingame Avenue, SW, Grand Rapids, MI 49509, but there were a number of trucks lined up for deliveries at the loading dock there, with an estimated 1 hour wait time, so the driver decided to go to the third delivery stop at the 150 Cottage Grove, SW Grand Rapids, MI 49507 location, and return to make the delivery to the 2100 Burlingame customer later.

At the 150 Cottage Grove location, the driver needed to unload the tote of Moor Floc 5401 to be able to offload the products needed by the customer at that location. So the tote involved in the incident was removed from the truck with the use of an electric pallet jack and set aside on the customer's loading dock. The products intended for that customer were unloaded. The incident occurred when the driver was repositioning the tote of Moor Floc 5401 back on the truck with the pallet jack. The bottom valve assembly caught on the corner of the other tote of Moor Floc 5401 in the truck and completely snapped off. The entire contents of the tote emptied off the back of the truck into the storm drain (an 8"x 15' grate spanning the width of the loading dock, connected to the storm sewer system on the customer property). The driver attempted to replace the valve to stop the flow, but the break was such as to make this impossible. Incidental skin contact occurred but was promptly washed off, and no injuries to the driver or any other responder occurred.

The customer's environmental manager and other personnel were already in the near vicinity when the spill occurred. The immediate response was to bring out a tank wagon to suck out the first on-property storm sewer retention chamber. (The storm water system at this location included four retention chambers on the customer's property before connection to the City of Grand Rapids storm sewer line located under Cottage Grove Avenue.) When testing of the pH of the downstream retention chambers showed carryover of the product, the customer's liquid waste contractor was called to arrange for response by their vac truck. At the same time, the National Response Center, the state Pollution Emergency Action System, and local authorities were notified as a precaution. The Grand Rapids Fire Department responded with a number of emergency vehicles. However, all spilled product was recovered from the four storm water retention chambers on customer property by the tank wagon and vac truck. The storm water chamber at the junction of the customer's line into the city line was opened for inspection and sampling, but was dry, indicating that no spilled product had migrated beyond the facility limits.

The Broadmoor Products sales representative was on site at the time of the incident, and obtained supporting information (such as the product MSDS). He was joined by the President of BPJ, the Technical Director, and additional personnel to provide technical assistance in the final stages of clean-up.

The loading dock area and the interior of the delivery truck were thoroughly washed down with water which was also recovered by the liquid waste contractor's vac truck. Once that was accomplished, the fire department left.

The product spilled was 275 gallons or 3059 pounds of 48.5% aluminum sulfate solution. Thus the total quantity of aluminum sulfate (CAS 10043-01-3) spilled was 1484 pounds. The spill did not exceed the Reportable Quantity of 5000 pounds for aluminum sulfate. The spill did exceed the Michigan NREPA Part 31 Rule TRQ of 500 pounds, but was 100% recovered on the customer's property, with none reaching the municipal storm sewer system or the receiving body (Plaster Creek). Thus, written reporting is not required under NREPA regulations.

The truck driver was sent for drug and alcohol testing, and none were found.

PART VII - RECOMMENDATIONS/ACTIONS TAKEN TO PREVENT RECURRENCE

- Where you are able to do so, suggest or describe changes (such as additional training, use of better packaging, or improved operating procedures) to help prevent recurrence. Provide recommendations for improvement to hazardous materials transportation beyond the control of your individual company. Continue on additional sheets if necessary.

Describe:

- 1) Highly recommend to drivers to wait to make deliveries according to the predetermined schedule to avoid repositioning or off-loading/on-loading of items in the load.
- 2) Be very careful to protect valves on totes in any repositioning maneuvers.
- 3) Reinforce need for immediate reporting to persons and agencies for fast response - which in this case was admirably performed by the environmental manager and additional personnel at the customer site. Their fast and effective response prevented any release beyond their property and precluded damage to the environment.

PART VIII - CONTACT INFORMATION

Contact's Name:	DAVID VAN DYKE
Contact's Title:	TECHNICAL DIRECTOR
Business Name and Address:	BROADMOOR PRODUCTS, INC. 4201 BROCKTON DRIVE, SE GRAND RAPIDS MI 49512
E-mail Address:	DVANDYKE@BROADMOORPRODUCTS.COM
Telephone Number:	616-285-6440
Fax Number:	616-285-5503
Hazmat Registration Number:	

Date:	12/20/2012
Preparer is:	Carrier