MARCH 5TH 2016
CALLAHAN, FL
Anhydrous Ammonia Near Miss
WINN DIXIE PARKING LOT
MC331 HIGH PRESSURE TANKER

MC 331 CARGO TANK
ANHYDROUS AMMONIA
2016 ERG

A guidebook intended for use by first responders during the initial phase of a transportation incident involving dangerous goods/hazardous materials

2016
EMERGENCY RESPONSE GUIDEBOOK

U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration
Transport Canada
Transports Canada
SCT
GUIDE 125

GUIDE GAS - CORROSIVE

POTENTIAL HAZARDS

HEALTH
- TOXIC, may be fatal if inhaled, ingested or absorbed through skin.
- Vapors are extremely irritating and corrosive.
- Contact with gas or liquid may cause burns, severe injury and/or frostbite.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control may cause pollution.

FIRE OR EXPLOSION
- Some may burn but none ignite readily.
- Vapors from liquid gas are initially heavier than air and spread along ground.
- Some of these materials may react violently with water.
- Cylinders exposed to fire may vent and release toxic and/or corrosive gas through pressure relief devices.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

PUBLIC SAFETY
- CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING
- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations. ONLY, it is not effective in spill situations where direct contact with the substance is possible.

EVACTION
- Spill: See Table 1 - Initial Isolation and Protective Action Distances for highlighted materials. For non-highlighted materials, increase, in the downwind direction, as necessary, the isolation distance shown under "PUBLIC SAFETY".
- Fire: If tank, rail car or tank truck is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions. Also, consider initial evacuation for 1600 meters (1 mile) in all directions.
## EMERGENCY RESPONSE GUIDEBOOK
### GREEN PAGES

### TABLE OF INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

<table>
<thead>
<tr>
<th>ID#</th>
<th>NAME OF MATERIAL</th>
<th>SMALL SPILLS</th>
<th>LARGE SPILLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1005</td>
<td>Ammonia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1005</td>
<td>Ammonia, Anhydrous, liquefied</td>
<td>500 0.1 0.6</td>
<td>500 0.3 2.2</td>
</tr>
<tr>
<td>1005</td>
<td>Ammonia Solutions, with more than 50% ammonia</td>
<td>500 0.1 0.6</td>
<td>500 0.3 2.2</td>
</tr>
<tr>
<td>1005</td>
<td>Anhydrous Ammonia</td>
<td>500 0.1 0.6</td>
<td>500 0.3 2.2</td>
</tr>
<tr>
<td>1008</td>
<td>Boron Trifluoride</td>
<td>500 0.3 2.0</td>
<td>500 0.8 2.9</td>
</tr>
<tr>
<td>1016</td>
<td>Carbon Monoxide</td>
<td>500 0.3 2.0</td>
<td>500 0.7 2.8</td>
</tr>
<tr>
<td>1017</td>
<td>Chlorine</td>
<td>500 0.7 2.8</td>
<td>500 0.7 2.8</td>
</tr>
<tr>
<td>1023</td>
<td>Coal Gas</td>
<td>500 0.1 1.2</td>
<td>500 0.7 2.8</td>
</tr>
<tr>
<td>1026</td>
<td>Cyanogen</td>
<td>500 0.1 1.1</td>
<td>500 0.7 2.8</td>
</tr>
<tr>
<td>1026</td>
<td>Cyanogen, liquefied</td>
<td>500 0.1 1.1</td>
<td>500 0.7 2.8</td>
</tr>
</tbody>
</table>
ANHYDROUS AMMONIA SDS

Right to Know Hazardous Substance Fact Sheet

Common Name: AMMONIA
Synonyms: Anhydrous Ammonia
CAS No: 7664-41-7
Molecular Formula: NH₃
RTE Substance No: 0094
Description: Colorless gas with a strong, sharp, irritating odor.

HAZARD DATA

Hazard Rating
1: Fire
2: Health
3: Reactivity
DOT#: UN 1005
ERG Guide#: 2.3

Reactivity: Ammonia reacts violently with halogens (such as fluorine, chlorine, and bromine). Acids (such as hydrochloric acid) and bases. Nitrogen dioxide, hydrofluoric acid, and perchloric acid. With certain metal oxides, peroxides, perchlorates, chlorates, nitrites, alkyl halides, and many metals and their alloys (such as zinc, copper, and brass). Ammonia dissolves in water to release heat. Keep away from heat, moisture, and direct sunlight.

PHYSICAL PROPERTIES

Odor Threshold: Less than 5 ppm
Flash Point: Non-flammable
LEL: 15%
UEL: 28%
Vapor Density: 0.6 (air = 1)
Vapor Pressure: 698 mm Hg at 70°F (21°C)
Water Solubility: Soluble
Boiling Point: -28°F (-33.4°C)
Ignition Potential: 10.18 ft
Autoignition: 1,250°F (675°C)

EXPOSURE LIMITS

OSHA: 50 ppm (8 hr TWA)
NIOSH: 25 ppm (15 hr TWA), 35 ppm STEL
ACGIH: 25 ppm (8 hr TWA), 35 ppm STEL
IDLH LEVEL: 300 ppm
ERPG-1: 10 ppm
ERPG-2: 200 ppm
ERPG-3: 1,000 ppm

PROTECTIVE EQUIPMENT

Gloves: Nitrile, Neoprene, Butyl
Coversalls: DuPont Tychem® CPE and Kappler Zyron® 500
Boots: Butyl/Neoprene
Respirator: > 25 ppm - APR with full-facepiece and cartridges for Ammonia
> 25 ppm - Supplied Air
> 500 ppm - SCBA

HEALTH EFFECTS

Eyes: Irritation and burns
Skin: Irritation and burns. Contact with liquid causes frostbite
Acute: Nose, throat and lung irritation with coughing and shortness of breath
Chronic: An asthma-like allergy with shortness of breath, wheezing, coughing and/or chest tightness

FIRST AID AND DECONTAMINATION

Remove any contaminated clothing. Wash hands immediately. Avoid skin contact. Do not breathe dust, mist, or vapor. Remove contaminated clothing and wash immediately. Use only with adequate ventilation. Emergency breathing apparatus must be used at concentrations above 100 ppm. Use decontamination procedure for ammonia.

September 2007
UPON OUR ARRIVAL
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UPON OUR ARRIVAL
STABILIZATION WITH HEAVY WRECKERS
ATTEMPT TO TRANS-FLOW TO EMPTY MC331
PLAN “B” LIFT AND CRIB WITH HEAVY TIMBERS