

Fertilizer Industry Methamphetamine Task Force

The Fertilizer Industry Methamphetamine Task Force met Nov. 1 to review information available on the announcement of the availability of calcium nitrate (CN9) as an effective additive to anhydrous ammonia to render it ineffective in the production of methamphetamine. The task force is hopeful that this information, as well as the links to background information provided by the state of Iowa, will be helpful.

Q. Does CN9 render anhydrous ammonia unusable for meth production?

A. Yes, according to tests performed at the Iowa Division of Criminal Investigation crime lab and verified by the Federal Drug Enforcement Agency laboratory.

Q. How much CN9 is required to treat anhydrous ammonia?

A. It takes nine gallons (110 pounds) of CN9 to treat 2,000 pounds of anhydrous ammonia.

Q. What is the analysis of CN9?

A. Total Nitrogen:	9%
0.58% Ammoniacal Nitrogen	
8.42% Nitrate Nitrogen	
Soluble Calcium	11%
Weight Per Gallon	12.2 lbs

Q. Does CN9, when introduced into an ammonia nurse tank change the analysis of NH3?

A. Yes. CN9 reduces the analysis of NH3 from 82-0-0 to 78-0-0.

Q. What types of NH3 tanks were tested using CN9?

A. Only anhydrous ammonia nurse tanks have been tested. No testing has been performed on ammonia storage tanks, transport vehicles or rail cars. Therefore, instructions from the Iowa Department of Agriculture call for the product to be injected only into nurse tanks. No testing has been performed on appurtenances such as valves.

Q. Will testing be conducted on other modes of transportation which carry NH3?

A. No, at this point no further testing is scheduled on storage tanks, transport vehicles or rail cars.

Q. How is CN9 inserted into the anhydrous ammonia nurse tanks?

A. CN9 must be inserted through the liquid withdraw valve only to prevent heating and rise in pressure. If not introduced through the liquid withdraw valve, the increase in pressure can cause the pop-off valve to release.

Q. Do you have to reduce the amount of ammonia in a nurse tank to allow for the addition of CN9 which also contains 40 percent water?

A. No, nurse tanks can be filled to 85 percent of capacity with anhydrous ammonia. CN9 can then be added to the ammonia through the liquid withdraw valve on the nurse tank. The addition of the recommended amount of CN9 will only increase tank capacity by .18

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percent. (Keep in mind that many state level Departments of Agriculture regulations, such as Illinois, only allow tanks to be filled to 85 percent capacity.)

Q. How do you insert CN9?

A. It is recommended that you have a dedicated pump. CN9 should not be contaminated with phosphate or sulfate containing materials.

Q. What was the age of nurse tanks used in the Iowa Department of Agriculture tests?

A. Nurse tanks tested with assistance from Iowa Department of Agriculture have been in use for a number of years. They were not recently manufactured tanks.

Q. Were the welds on the tanks tested in conjunction with Iowa Department of Agriculture negatively affected?

A. The answer is unknown since the tanks used have not been internally inspected. Stress corrosion crack testing of welded plates did not indicate an increase in stress corrosion cracking due to the introduction of calcium nitrate. Please refer to the testing done by CC Technologies, Dublin, Ohio.

Q. Was there any salting out?

A. No.

Q. How long does it take to insert CN9 in a nurse tank?

A. According to Iowa Department of Agriculture, it takes approximately 10-15 minutes to insert the required quantity of CN9 into a 1,000 gallon nurse tank. This was accomplished with a gear pump. A piston pump may take considerably longer.

Q. Were there any internal inspections conducted prior to adding CN9 to nurse tanks?

A. No. But it was indicated at the meeting that the tanks tested by Iowa Department of Agriculture could be cut open and inspected for internal tank corrosion. Nurse tank steel has been suspended in anhydrous ammonia treated with calcium nitrate for extended periods of time with no rusting or corrosion. Testing indicated no stress corrosion cracking.

Q. How much will CN9 cost?

A. It is estimated that CN9 will cost approximately \$13 per ton of treated anhydrous ammonia, not including handling or possible storage costs. Retailers are encouraged to contact their suppliers as this cost may vary across the nation. Since CN9 is a fertilizer and early indications are that the product may only be sold in bulk, the CN9 may be required to be stored within containment based on the quantity stored and state regulations; therefore containment permits may need to be modified and approved to allow for CN9 storage.

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Q. Does the addition of CN9 to ammonia change the Department of Transportation (DOT) shipping description?

A. It shouldn't. This analysis of CN9 fertilizer is not a regulated DOT hazardous material.

Q. Where can you purchase CN9?

A. Contact your fertilizer supplier.

Links for Additional Background Information and Testing Results:

Iowa Governor's Office of Drug Control Policy

www.state.ia.us/odcp/

Iowa Department of Agriculture

www.agriculture.state.ia.us

Other Resources:

Economy Controls Pump Model 3006

www.economycontrols.com/injection_equi.html

National Contacts:

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