MEMORANDUM

SUBJECT: Amitraz Registration Standard

ID NO(S). 45639-51
RCB NO(S). 3975
MRID NO(S). 406507-00 TO 07

FROM: H. Fonouni, Ph.D., Chemist
Residue Chemistry Branch
Hazard Evaluation Division (TS-769C)

TO: Dennis Edwards (PM-12)
Insecticide/Rodenticide Branch
Registration Division (TS-767C)

THRU: William J. Boodee, Section Head
Residue Chemistry Branch
Hazard Evaluation Division (TS-769C)

In response to the Amitraz Registration Standard (Guidance Document, October, 1987 and Task 1, October 5, 1984), Nor-Am Chemical Company has forwarded product chemistry information/data on the technical chemical. It should be noted that, the composition of the technical product for which the current information has been provided differs from the stabilized technical chemical, EPA Registration No. 45639-51, as reflected in the Task 1.

The information/data submitted and our conclusions are discussed below. In addition, revised Tables A and B have been included to reflect the remaining product chemistry data requirements.

61-2 Description of Beginning Materials and Manufacturing Process

MRID NO(S): 406507-01

The information/data provided appears in Confidential Appendix A.
The information/data provided satisfy the requirements for this topic.

61-3 Discussion of Formation of Impurities
MRID NO: 406507-01

The information provided appears in Confidential Appendix A.
The information/data provided satisfies the requirements for this topic.

62-1 Preliminary Analysis of Product Samples
MRID NO: 406507-02

The information/data provided appears in Confidential Appendix B.
The information/data provided satisfies the requirements for this topic.

62-2 Certification of Ingredient Limits
MRID NO: 406507-03

The information/data provided appears in Confidential Appendix C.
The information/data provided satisfy the requirements for this topic.

62-3 Analytical Methods to Verify Certified Limits
MRID NO: 406507-04 to -06

The information/data provided appears in Confidential Appendix D.
The information/data provided satisfy the requirements for this topic

63 Physical and Chemical Characteristics
MRID NO: 406507-07

The information/data provided is presented below.

63-2 Color: White/Pale yellow

63-3 Physical State: Powder
63-4 Odor: Slight amine odor

63-5 Melting Point (solids): 86.1 Degree C

63-6 Boiling Point (liquids): N/A

63-7 Density, Bulk Density or Specific Gravity: 1.128 g/ml at 20 Degree C

63-8 Solubility: $9.3 \times 10^{-5}$ g/l of water at 25.5 Degree C; the product is not stable in water, as a result the concentration of at least one of the degradation products formed is reportedly higher than that of the product.

63-9 Vapor Pressure: $3.4 \times 10^{-4}$ pa at 25 degree C (pure form)

63-11 Octanol/water Partition Coefficient: $3.0 \times 10^{3}$ at 25 Degree C (pH = 5.8)

63-12 pH: N/A; the product has a low solubility, and decomposes in water.

N/A = Not Applicable

Information/data gaps remain on this topic. Additional Data must be provided on solubility of the product in organic solvents (63-8); dissociation constant (63-10); and stability (63-13), of the product, including thermal stability, sensitivity to sun light, metals and metal ions.

Attachment I – Tables A (2 pages) and B (1 page)

CC: Amitraz Registration Standard File, SF, Reviewer (H. Fonouni), RBP, TOX (R. Coberly), PMSD/ISB (E. Eldredge), PM 12 (D. Edwards)

Attachment II – Confidential Appendix A (2 pages)
Attachment III – Confidential Appendix B (1 page)
Attachment IV – Confidential Appendix C (2 pages)
Attachment V – Confidential Appendix D (3 pages)

cc: Amitraz Registration Standard File, SF, RF, Reviewer
   (H. Fonouni), RBP, TOX (R. Coberly), PMSD/ISB (E. Eldredge),
   PM 21 (D. Edwards), Circu.
<table>
<thead>
<tr>
<th>Test Name</th>
<th>Test</th>
<th>Name of Test/Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>63-12-2</td>
<td>TL</td>
<td>Physical and Chemical Characteristics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Certified limits</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Analytical Methods to verify limits</td>
</tr>
<tr>
<td>62-3</td>
<td>TL</td>
<td>Certified of Intermediate analyses</td>
</tr>
<tr>
<td>61-2</td>
<td>TL</td>
<td>Product identity and composition</td>
</tr>
<tr>
<td>61-1</td>
<td>TL</td>
<td>Product identity and composition</td>
</tr>
<tr>
<td>60-507-01</td>
<td>TL</td>
<td>40 CFR 158.120 Product Chemistry</td>
</tr>
<tr>
<td>406509-02</td>
<td>X</td>
<td>406509-02-4 to 6</td>
</tr>
<tr>
<td>406509-03</td>
<td>X</td>
<td>406509-03-1</td>
</tr>
<tr>
<td>406507-01</td>
<td>X</td>
<td>406507-01-1</td>
</tr>
<tr>
<td>406509-04</td>
<td>X</td>
<td>406509-04-4 to 6</td>
</tr>
<tr>
<td></td>
<td>X</td>
<td>406509-00-7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Test</th>
<th>Name of Test/Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>TL</td>
<td>Additional guidelines</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Test for the Technical Article, Non-AR Chemical Company</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name of Test/Category</th>
<th>Test Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 CFR 158.120 Product Chemistry</td>
<td></td>
</tr>
</tbody>
</table>

**Table A**

**Table A (Continued, Footnotes Follow)**
<table>
<thead>
<tr>
<th>Other Requirements</th>
<th>64-1 – Submittal of samples</th>
<th>X</th>
<th>69-3-13 – Stability</th>
<th>158.120 Product Chemistry (cont’d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Test and Reference Citation</td>
<td>[NAME]</td>
<td>[YES/NO]</td>
<td>[NAME]</td>
<td>[YES/NO]</td>
</tr>
<tr>
<td>Substance</td>
<td>Test Guidelines</td>
<td>Additional Data Required</td>
<td>Status</td>
<td>Reference Citation</td>
</tr>
</tbody>
</table>

**Table A**

Generic Data Requirements for the Technical Information

(9)
| 406507-01 | X | R | NP |
| 406507-02 | X | R | NP |
| 406507-03 | X | R | NP |

**Physical and Chemical Characteristics**

| 62-1 - Analytical Methods to Verify Limits |
| 62-2 - Certification of Intermediate Analytical Product Intermediates |
| 61-3 - Determination of Impurities |
| 61-4 - Identity of Intermediates |

**Product Identity and Composition**

| 60 CFR 158.120 Product Chemistry |

---

**Table B**

<table>
<thead>
<tr>
<th>Name of Test</th>
<th>Substance Categories</th>
<th>Data Requirements for the Manufacturing-Use Product Containing Ammonia, N/A-AM Chemical Company</th>
</tr>
</thead>
</table>

(7)
Amitraz residue chemistry review

Page ____ is not included in this copy.
Pages 8 through 15 are not included in this copy.

The material not included contains the following type of information:

X Identity of product inert ingredients
__ Identity of product impurities
X Description of the product manufacturing process
X Description of product quality control procedures
__ Identity of the source of product ingredients
__ Sales or other commercial/financial information
__ A draft product label
__ The product confidential statement of formula
__ Information about a pending registration action
__ FIFRA registration data
__ The document is a duplicate of page(s) ______
__ The document is not responsive to the request

The information not included is generally considered confidential by product registrants. If you have any questions, please contact the individual who prepared the response to your request.