

Revision: 08/18/2019

|     |  | ng to Regulation (EC) No. 1907/2006 as amended by (EC) No. 2015/830  |   |  |  |  |
|-----|--|--|---|--|--|--|
|     | Section 1.   | Identification of the Substance/Mixture and of the   | ne Company/Undertaking                              |  |  |  |
| 1.1 | Product Code:<br>Product Name:<br>Synonyms:                        | 28300<br>Azimilide (hydrochloride)<br>1-[[[5-(4-chlorophenyl)-2-furanyl]methylene]am<br>olidinedione, dihydrochloride; NE 10064; | nino]-3-[4-(4-methyl-1-piperazinyl)butyl]-2,4-imida |  |  |  |
| 1.2 | Relevant identified uses of  | of the substance or mixture and uses advised aga   | ainst:  |  |  |  |
|     | Relevant identified uses   | For research use only, not for human or veterir  | nary use.   |  |  |  |
| 1.3 | Details of the Supplier of   | the Safety Data Sheet:   |   |  |  |  |
|     | Company Name:  | Cayman Chemical Company<br>1180 E. Ellsworth Rd.<br>Ann Arbor, MI 48108  |   |  |  |  |
|     | Web site address:  | www.caymanchem.com   |   |  |  |  |
|     | Information:   | Cayman Chemical Company  | +1 (734)971-3335                                    |  |  |  |
| 1.4 | Emergency telephone nui  | mber:  |   |  |  |  |
|     | Emergency Contact:   | CHEMTREC Within USA and Canada:<br>CHEMTREC Outside USA and Canada:  | +1 (800)424-9300<br>+1 (703)527-3887                |  |  |  |
|     |  | Section 2. Hazards Identifica  | ation   |  |  |  |
| 2.1 | Classification of the Subs   | tance or Mixture   |   |  |  |  |
| 2.1 |  |  |   |  |  |  |
| 2.2 | Acute Toxicity: Oral, Ca<br>Label Elements:                        | tegory 3   |   |  |  |  |
|     | GHS Signal Word:<br>GHS Hazard Phrases:                            | Danger   |   |  |  |  |
|     | H301: Toxic if swallowed   |  |   |  |  |  |
|     | GHS Precaution Phrases:  |  |   |  |  |  |
|     | P264: Wash {hands} thoroughly after handling.                      |  |   |  |  |  |
|     | GHS Response Phrases<br>P301+310: IF SWALLOW<br>P330: Rinse mouth. | :<br>/ED: Immediately call a POISON CENTER or doctor.  | /physician.   |  |  |  |
|     | GHS Storage and Dispo  | sal Phrases:   |   |  |  |  |
|     |  | for Storage and Section 13 for Disposal information.   |   |  |  |  |
| 2.3 | Adverse Human Health<br>Effects and Symptoms:                      | Material may be irritating to the mucous membrane<br>May be harmful by inhalation or skin absorption.                            |   |  |  |  |
|     |  | May cause eye, skin, or respiratory system irritation<br>Toxic if swallowed.   |   |  |  |  |
|     |  | To the best of our knowledge, the toxicological pro  | pentes have not been thoroughly investigated.       |  |  |  |
|     |  |  |   |  |  |  |



| CAS<br>RTEC   |  | oonents (Chemical Name)/<br>tion No.   | Concentration 100.0 % | EC No./<br>EC Index No. | GHS Classification  |
|---|--|--|-----------------------|-------------------------|---|
| 14988<br>NA   |  | nyl)-2-furanyl]methylene]amino]-3<br>razinyl)butyl]-2,4-imidazolidinedi                          |                       | 802-898-7<br>NA         | Acute Tox.(O) 3: H301   |
|   |  | Section 4. Fi  | rst Aid Meas          | sures                   |   |
| 4.1   | Description of First Aid<br>Measures:                                  |  |                       |                         |   |
|   | In Case of Inhalation:   | Remove to fresh air. If not bre<br>Get immediate medical attent                                  |                       | al respiration or gi    | ve oxygen by trained personnel                                |
|   | In Case of Skin Contact:   | Immediately wash skin with s<br>clothing. Get medical attentio                                   |                       |                         | 5 minutes. Remove contaminate<br>pefore reuse.                |
|   | In Case of Eye Contact:  | Hold eyelids apart and flush e<br>and tested by medical person                                   |                       | water for at least 1    | 5 minutes. Have eyes examine                                  |
|   | In Case of Ingestion:  | Wash out mouth with water p<br>unconscious person. Get med<br>medical personnel.                 | -                     | -                       | ive anything by mouth to an<br>ng unless directed to do so by |
|   |  | Section 5. Fire  | Fighting Me           | asures                  |   |
| 5.1   | Suitable Extinguishing<br>Media:<br>Unsuitable Extinguishing<br>Media: | Use alcohol-resistant foam, o<br>Use water spray to cool fire-e<br>g A solid water stream may be | exposed containers    | -                       | l spray.  |
| 5.2   | Flammable Properties an  | ndNo data available.   |                       |                         |   |
|   | Hazards:   |  |                       |                         |   |
|   |  | No data available.   |                       |                         |   |
|   | Flash Pt:  | No data.   |                       |                         |   |
|   | Explosive Limits:  | LEL: No data.  | UEL: No o             | data.                   |   |
|   | Autoignition Pt:   | No data.   |                       |                         |   |
| 5.3   | Fire Fighting Instructions   | s: As in any fire, wear self-conta<br>equivalent), and full protectiv                            |                       | -                       |   |
|   |  | Section 6. Acciden   | tal Release           | Measures                |   |
| 6.1   | Protective Precautions,  | Avoid raising and breathing  | dust, and provide a   | dequate ventilatio      | n.  |
|   | Protective Equipment an  | d As conditions warrant, wear  | a NIOSH approved      | d self-contained bro    | eathing apparatus, or respirator                              |
|   | Emergency Procedures:  | and appropriate personal pro   | otection (rubber bo   | ots, safety goggles     | s, and heavy rubber gloves).                                  |
| 6.2   | Environmental<br>Precautions:  | Take steps to avoid release  | into the environme    | nt, if safe to do so.   |   |
| <ul> <li>6.3 Methods and Material For Contain spill and collect, as appropriate.</li> <li>Containment and Cleaning Transfer to a chemical waste container for disposal in accordance with loca<br/>Up:</li> </ul> |  | e with local regulations.  |                       |                         |   |
|   | -  |  |                       |                         |   |
|   |  |  |                       |                         |   |



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|       |  | Section 7. Handling and Storage  |
|-------|--|--|
| 7.1   | Precautions To Be Taken A                        | Avoid breathing dust/fume/gas/mist/vapours/spray.  |
|       | in Handling:                                     | void prolonged or repeated exposure.   |
| 7.2   | Precautions To Be Taken                          | Keep container tightly closed.   |
|       | in Storing:                                      | Store in accordance with information listed on the product insert.                                   |
|       | Section 8. Exposure Controls/Personal Protection |  |
| 8.1   | Exposure Parameters:                             |  |
| 8.2   | Exposure Controls:                               |  |
| 8.2.1 | Engineering Controls                             | Jse process enclosures, local exhaust ventilation, or other engineering controls to control airborne |
|       | (Ventilation etc.):                              | evels below recommended exposure limits.   |
| 8.2.2 | Personal protection equipn                       | nent:  |
|       | Eye Protection:                                  | Safety glasses   |
|       | Protective Gloves: 0                             | Compatible chemical-resistant gloves   |
|       | Other Protective Clothing:L                      | ab coat  |
|       | Respiratory Equipment                            | IIOSH approved respirator, as conditions warrant.  |
|       | (Specify Type):                                  |  |
|       | Work/Hygienic/Maintenan                          | Do not take internally.  |
|       |  | acilities storing or utilizing this material should be equipped with an eyewash and a safety shower  |
|       | V  | Vash thoroughly after handling.  |
|       | Ν  | lo data available.   |
|       | See  | ction 9. Physical and Chemical Properties  |
| 9.1   | Information on Basic Physic                      | cal and Chemical Properties  |
|       | Physical States:                                 | []Gas []Liquid [X]Solid  |
|       | Appearance and Odor:                             | A crystalline solid  |
|       | рН:  | No data.   |
|       | Melting Point:                                   | No data.   |
|       | Boiling Point:                                   | No data.   |
|       | Flash Pt:  | No data.   |
|       | Evaporation Rate:                                | No data.   |
|       | Flammability (solid, gas):                       | No data available.   |
|       | Explosive Limits:                                | LEL: No data. UEL: No data.  |
|       | Vapor Pressure (vs. Air or r                     | nm No data.  |
|       | Hg):   |  |
|       | Vapor Density (vs. Air = 1):                     | No data.   |
|       | Specific Gravity (Water = 1)                     | : No data.   |
|       | Solubility in Water:                             | No data.   |
|       | Solubility Notes:                                | ~10 mg/ml in PBS (pH 7.2);   |
|       | Octanol/Water Partition                          | No data.   |
|       | Coefficient:                                     |  |
|       |  |  |
|       |  |  |
|       |  |  |

Multi-region format



| Percent Volatile:       No data .         Molecular Formula & Weight:       C23H28CIN5G3 • 2HCI       530.9         Section 10. Stability and Reactivity:       No data available.         10.1       Reactivity:       No data available.         10.2       Stability:       Unstable []       Stable [X]         10.3       Stability: Note(s):       Stable if stored in accordance with information listed on the product insert.<br>Polymerization:       Will occur []       Will not occur [X]         10.4       Conditions To Avoid:       No data available.       Iteration accordance with information listed on the product insert.         10.5       Incompatibility - Materials strong oxidizing agents<br>To Avoid:       Iteration according agents<br>Toxicological Effects:         11.1       Information on<br>Toxicological Effects:       Section 11. Toxicological Information<br>Toxicological Effects:       Iteration according agents<br>Toxicological Effects:         24.8       Hazardous Components (Chemical Name)       NTP       IARC       ACGIH       OSH/<br>Altagention         1149888-94-8       Infig.fd-Chiorophemyly-2-furanyllmethylenelaminol-3-4(-4-<br>Methyl-1-piperazinyllybutyl-2,4-initiazolidinedione<br>dithydrochi  | Vi<br>2.2 Ot<br>P(<br>M<br>10.1 R(<br>10.2 Si<br>10.3 Si<br>10.3 Si<br>10.4 C(<br>10.5 In<br>T(<br>10.6 Hi<br>D(<br>B)<br>11.1 In<br>T(<br>CAS #  | Viscosity:<br>ther Information<br>Percent Volatile:<br>Molecular Formula & Weig<br>Reactivity:<br>Stability Note(s):<br>Polymerization:<br>Conditions To Avoid:<br>ncompatibility - Materials<br>To Avoid:<br>Hazardous<br>Decomposition or<br>Byproducts:    | No data.<br>No data.<br>ght: C23H28CIN5O3 • 2HCI 530.9<br>Section 10. Stability and<br>No data available.<br>Unstable [] Stable [X]<br>Stable if stored in accordance with informa<br>Will occur [] Will not occur [X]<br>No data available.<br>strong oxidizing agents<br>carbon dioxide<br>carbon monoxide<br>hydrogen chloride gas<br>nitrogen oxides<br>Section 11. Toxicological   | Reactiv        | on the product | insert.  |      |
|--|---|---|---|----------------|----------------|----------|------|
| 3.2       Other Information         Percent Volatile:       No data.         Molecular Formula & Weight:       C23H22CINSO3 • 2HCl       530.9         Section 10. Stability and Reactivity         10.1       Reactivity:       No data available.         10.2       Stability Note(s):       Stable []         10.3       Stability Note(s):       Stable []         10.3       Stability Note(s):       No data available.         10.4       Conditions To Avoid:       No data available.         10.5       Incompatibility Note(s):       No data available.         10.6       Hazardous       carbon dioxide         Decomposition or       carbon monoxide       Byproducts:         Byproducts:       hydrogen chloride gas       nitrogen oxides         Cast Hazardous Components (Chemical Name)       NTP         IARC       ACGIH         11.1 Information on The toxicological effects of this product have not been thoroughly studied.         Toxicological Effects:         CAS #       Hazardous Components (Chemical Name)       NTP       IARC       ACGIH       08H         149888-94-8       1-[[[6-(4-Chlorophenyl)-2-furmyl]methylene]amino]-3-[4-(4-fin nia.       n.a.       n.a.       n.a   | 9.2 Ot<br>Pa<br>M<br>10.1 Ra<br>10.2 St<br>10.3 St<br>10.3 St<br>10.4 Ca<br>10.5 In<br>Ta<br>10.6 Ha<br>Da<br>10.6 Ha<br>Da<br>Da<br>Da<br>Da<br>Da<br>Da<br>Da<br>Da<br>Da<br>Da<br>Da<br>Da<br>Da | ther Information<br>Percent Volatile:<br>Molecular Formula & Weig<br>Reactivity:<br>Stability:<br>Stability Note(s):<br>Polymerization:<br>Conditions To Avoid:<br>ncompatibility - Materials<br>To Avoid:<br>Hazardous<br>Decomposition or<br>Byproducts:    | No data.<br>ght: C23H28CIN5O3 • 2HCI 530.9<br>Section 10. Stability and<br>No data available.<br>Unstable [] Stable [X]<br>Stable if stored in accordance with informa<br>Will occur [] Will not occur [X]<br>No data available.<br>s strong oxidizing agents<br>carbon dioxide<br>carbon monoxide<br>hydrogen chloride gas<br>nitrogen oxides<br>Section 11. Toxicological   | Reactiv        | on the product | insert.  |      |
| Percent Volatile:       No data.         Molecular Formula & Weight:       C23H28CINSO3 • 2HCI       530.9         Section 10. Stability and Reactivity:       No data available.         10.1       Reactivity:       No data available.         10.2       Stability:       Unstable []       Stable [X]         10.3       Stability:       Unstable []       Will occur []       Will on cocur [X]         10.4       Conditions To Avoid:       No data available.       Voltatian       Voltatian         10.5       Incompatibility - Materials strong oxidizing agents<br>To Avoid:       Will occur []       Will not occur [X]       Voltatian         10.6       Hazardous       carbon dioxide<br>Decomposition or       Carbon dioxide<br>carbon dioxide       Voltatian       Voltatian       Voltatian         11.1       Information on<br>Toxicological Effects:       Section 11. Toxicological Information       NTP       IARC       ACGIH       OSH/<br>0SH/<br>0SH/<br>149888-94-8       Other control or dilution water may cause pollution.         12.1       Avoid release into the environment.<br>Runoff from fire control or dilution water may cause pollution.       Na.       n.a.       n.a.       n.a.         12.1       Avoid release into the environment.<br>Buyot release into the environment.<br>Runoff from fire control or dilution water may cause pollution.       Section 12. Ecological Informa   | Pe<br>M<br>10.1 Re<br>10.2 Si<br>10.3 Si<br>10.3 Si<br>10.4 Ce<br>10.5 In<br>Te<br>10.6 Ha<br>De<br>Ba<br>11.1 In<br>Te<br>CAS #  | Percent Volatile:<br>Molecular Formula & Weig<br>Reactivity:<br>Stability Note(s):<br>Polymerization:<br>Conditions To Avoid:<br>ncompatibility - Materials<br>To Avoid:<br>Hazardous<br>Decomposition or<br>Byproducts:                                      | ght:       C23H28CIN5O3 • 2HCI       530.9         Section 10. Stability and         No data available.         Unstable []       Stable [X]         Stable if stored in accordance with informa         Will occur []       Will not occur [X]         No data available.         strong oxidizing agents         carbon dioxide         carbon monoxide         hydrogen chloride gas         nitrogen oxides         Section 11. Toxicological | Reactiv        | on the product | insert.  |      |
| Molecular Formula & Weight:       C23H28CINSO3 • 2HCI       530.9         Section 10. Stability and Reactivity         Intervention       No data available.         Intervention       Unstable [] Stable [X]         Intervention       Will occur [] Will not occur [X]         Intervention       Will occur [] Will not occur [X]         Intervention       No data available.         Intervention       National State (S)         Intervention       Carbon dioxide         Decomposition or       carbon monoxide         Byproducts:       hydrogen chloride gas         nitrogen oxides       NTP         Information on       The toxicological effects of this product have not been thoroughly studied.         Toxicological Effects:       Section 12. Ecological Information         I149888-94-8       1-[[[5-(4-Chlorophenyl)-2-furanyl]methylene]amino]-3-[4-(4-       n.a.       n.a.       n.a.         I2.1       Toxicity:       Avoid release into the environment. </td <td>M<br/>10.1 R<br/>10.2 S1<br/>10.3 S1<br/>10.4 C<br/>10.5 In<br/>10.6 H<br/>10.6 H<br/>B<br/>11.1 In<br/>Ta<br/>CAS #</td> <td>Molecular Formula &amp; Weig<br/>Reactivity:<br/>Stability:<br/>Stability Note(s):<br/>Polymerization:<br/>Conditions To Avoid:<br/>ncompatibility - Materials<br/>To Avoid:<br/>Hazardous<br/>Decomposition or<br/>Byproducts:<br/>Information on<br/>Toxicological Effects:</td> <td>ght:       C23H28CIN5O3 • 2HCI       530.9         Section 10. Stability and         No data available.         Unstable []       Stable [X]         Stable if stored in accordance with informa         Will occur []       Will not occur [X]         No data available.         strong oxidizing agents         carbon dioxide         carbon monoxide         hydrogen chloride gas         nitrogen oxides         Section 11. Toxicological</td> <td>Reactiv</td> <td>on the product</td> <td>insert.</td> <td></td> | M<br>10.1 R<br>10.2 S1<br>10.3 S1<br>10.4 C<br>10.5 In<br>10.6 H<br>10.6 H<br>B<br>11.1 In<br>Ta<br>CAS #   | Molecular Formula & Weig<br>Reactivity:<br>Stability:<br>Stability Note(s):<br>Polymerization:<br>Conditions To Avoid:<br>ncompatibility - Materials<br>To Avoid:<br>Hazardous<br>Decomposition or<br>Byproducts:<br>Information on<br>Toxicological Effects: | ght:       C23H28CIN5O3 • 2HCI       530.9         Section 10. Stability and         No data available.         Unstable []       Stable [X]         Stable if stored in accordance with informa         Will occur []       Will not occur [X]         No data available.         strong oxidizing agents         carbon dioxide         carbon monoxide         hydrogen chloride gas         nitrogen oxides         Section 11. Toxicological | Reactiv        | on the product | insert.  |      |
| Section 10. Stability and Reactivity         10.1       Reactivity:       No data available.         10.2       Stability:       Unstable []       Stable [X]         10.3       Stability Note(s):       Stable if stored in accordance with information listed on the product insert.         Polymerization:       Will occur []       Will not occur [X]         10.4       Conditions To Avoid:       No data available.         10.5       Incompatibility - Materials strong oxidizing agents<br>To Avoid:       Incompatibility - Materials strong oxidizing agents<br>To Avoid:         10.6       Hazardous       carbon dioxide       Decomposition or         Decomposition or       carbon monoxide       Byproducts:       hydrogen chloride gas<br>nitrogen oxides         Section 11. Toxicological Information         Toxicological Effects:         CAS #       Hazardous Components (Chemical Name)       NTP       IARC       ACGIH       OSH/         14/105-44-Chiorophenyl)-2-furanyl[methylene]amino]-3-[4-(4-<br>dihydrochloride       n.a.       n.a.<   | 10.1 Ri<br>10.2 Si<br>10.3 Si<br>10.4 Ci<br>10.5 In<br>10.6 Hi<br>10.6 Hi<br>Bi<br>11.1 In<br>Ta<br>CAS #   | Reactivity:<br>Stability Note(s):<br>Polymerization:<br>Conditions To Avoid:<br>ncompatibility - Materials<br>To Avoid:<br>Hazardous<br>Decomposition or<br>Byproducts:   | Section 10. Stability and<br>No data available.<br>Unstable [ ] Stable [ X ]<br>Stable if stored in accordance with informa<br>Will occur [ ] Will not occur [ X ]<br>No data available.<br>strong oxidizing agents<br>carbon dioxide<br>carbon monoxide<br>hydrogen chloride gas<br>nitrogen oxides<br>Section 11. Toxicological   | Reactiv        | on the product | insert.  |      |
| 10.1       Reactivity:       No data available.         10.2       Stability:       Unstable []       Stable [X]         10.3       Stability:       Stable if stored in accordance with information listed on the product insert.         Polymerization:       Will occur []       Will not occur [X]         10.4       Conditions To Avoid:       No data available.         10.5       Incompatibility - Materials strong oxidizing agents       To Avoid:         10.6       Hazardous       carbon dioxide         Decomposition or       carbon monoxide       Byproducts:         hydrogen chloride gas       nitrogen oxides         NTP Void:         11.1 Toxicological Information         Tot Avoid:         11.1 Information on         The toxicological effects of this product have not been thoroughly studied.         Toxicological Effects:         CAS #       Hazardous Components (Chemical Name)       NTP       IARC       ACGIH       OSH/         149888-94-8       1-[[[5-(4-Chlorophenyl]-2-furanyl]methylene]amino]-3-[4-(4-<br>dihydrochloride       n.a.       n.a.       n.a.       n.a.       n.a.       n.a.       n.a.         Hazardous control or dilution water may cause pollution.  | 10.2 Si<br>10.3 Si<br>10.4 Co<br>10.5 In<br>To<br>10.6 Ha<br>10.6 Ha<br>Do<br>Ba<br>11.1 In<br>To<br>CAS #  | Stability:<br>Stability Note(s):<br>Polymerization:<br>Conditions To Avoid:<br>ncompatibility - Materials<br>To Avoid:<br>lazardous<br>Decomposition or<br>Syproducts:  | No data available.<br>Unstable [ ] Stable [ X ]<br>Stable if stored in accordance with informa<br>Will occur [ ] Will not occur [ X ]<br>No data available.<br>s strong oxidizing agents<br>carbon dioxide<br>carbon monoxide<br>hydrogen chloride gas<br>nitrogen oxides<br>Section 11. Toxicological  | ition listed o | on the product | insert.  |      |
| 10.2       Stability:       Unstable [] Stable [X]         10.3       Stability Note(s):       Stable if stored in accordance with information listed on the product insert.         Polymerization:       Will occur [] Will not occur [X]         10.4       Conditions To Avoid:       No data available.         10.5       Incompatibility - Materials strong oxidizing agents<br>To Avoid:       Incompatibility - Materials strong oxidizing agents<br>To Avoid:         10.6       Hazardous       carbon dioxide         Decomposition or       carbon monoxide         Byproducts:       hydrogen chloride gas<br>nitrogen oxides         Section 11. Toxicological Information         11.1       Information on<br>Toxicological Effects:       The toxicological effects of this product have not been thoroughly studied.         CAS # Hazardous Components (Chemical Name)       NTP       IARC       ACGIH       OSH/         149888-94-8       1-[[[5-(4-Chlorophenyl])-2-furanyl]methylene]amino]-3-[4-(4-<br>methyl-1-piperazinyl]butyl]-2,4-imidazolidinedione<br>dihydrochloride       n.a.       n.a.       n.a.       n.a.         Section 12. Ecological Information         Section 12. Ecological Information         Information fire control or dilution water may cause pollution.         Isoacumulative No data available.         Degradability:  | 10.2 Si<br>10.3 Si<br>10.4 Co<br>10.5 In<br>To<br>10.6 Ha<br>10.6 Ha<br>Do<br>Ba<br>11.1 In<br>To<br>CAS #  | Stability:<br>Stability Note(s):<br>Polymerization:<br>Conditions To Avoid:<br>ncompatibility - Materials<br>To Avoid:<br>lazardous<br>Decomposition or<br>Syproducts:  | Unstable [ ] Stable [ X ]<br>Stable if stored in accordance with informa<br>Will occur [ ] Will not occur [ X ]<br>No data available.<br>strong oxidizing agents<br>carbon dioxide<br>carbon monoxide<br>hydrogen chloride gas<br>nitrogen oxides<br>Section 11. Toxicological  | Informa        |                | insert.  |      |
| 10.3       Stability Note(s):       Stable if stored in accordance with information listed on the product insert.         Polymerization:       Will occur []       Will not occur [X]         10.4       Conditions To Avoid:       No data available.         10.5       Incompatibility - Materials strong oxidizing agents<br>To Avoid:       Incompatibility - Materials strong oxidizing agents<br>To Avoid:         10.6       Hazardous       carbon dioxide<br>Decomposition or       carbon monoxide<br>Byproducts:       Indrogen chloride gas<br>nitrogen oxides         Section 11. Toxicological Information         To Acoid:         NTP IARC ACGIH OSH/<br>Toxicological Effects:         CAS # Hazardous Components (Chemical Name)       NTP       IARC       ACGIH       OSH/<br>149888-94-8         1-[[[5-(4-Chlorophenyl)-2-furanyl]methylene]amino]-3-[4-(4-<br>methyl-1-piperazinyl)butyl]-2,4-imidazolidinedione       n.a.       n.a.       n.a.       n.a.         Section 12. Ecological Information         12.1         Section 12. Ecological Information         Section 12. Ecological Information         12.2       Persistence and<br>No data available.       No data available.         Decempadability:         12.3       Bioaccumulative<br>No data available. <td< td=""><td>10.3 Si<br/>P(<br/>10.4 C(<br/>10.5 In<br/>T(<br/>10.6 Ha<br/>D(<br/>B)<br/>11.1 In<br/>T(<br/>CAS #</td><td>Stability Note(s):<br/>Polymerization:<br/>Conditions To Avoid:<br/>ncompatibility - Materials<br/>To Avoid:<br/>Hazardous<br/>Decomposition or<br/>Byproducts:</td><td>Stable if stored in accordance with informa<br/>Will occur [ ] Will not occur [ X ]<br/>No data available.<br/>s strong oxidizing agents<br/>carbon dioxide<br/>carbon monoxide<br/>hydrogen chloride gas<br/>nitrogen oxides<br/>Section 11. Toxicological</td><td>Informa</td><td></td><td>insert.</td><td></td></td<>  | 10.3 Si<br>P(<br>10.4 C(<br>10.5 In<br>T(<br>10.6 Ha<br>D(<br>B)<br>11.1 In<br>T(<br>CAS #  | Stability Note(s):<br>Polymerization:<br>Conditions To Avoid:<br>ncompatibility - Materials<br>To Avoid:<br>Hazardous<br>Decomposition or<br>Byproducts:  | Stable if stored in accordance with informa<br>Will occur [ ] Will not occur [ X ]<br>No data available.<br>s strong oxidizing agents<br>carbon dioxide<br>carbon monoxide<br>hydrogen chloride gas<br>nitrogen oxides<br>Section 11. Toxicological   | Informa        |                | insert.  |      |
| Polymerization:       Will occur []       Will not occur [X]         10.4       Conditions To Avoid:       No data available.         10.5       Incompatibility - Materials strong oxidizing agents<br>To Avoid:       Incompatibility - Materials strong oxidizing agents<br>To Avoid:         10.6       Hazardous       carbon dioxide       Eventson and the strength of the strengt of the strength of the strengt of the streng   | P(<br>10.4 C(<br>10.5 In<br>T(<br>10.6 H)<br>D(<br>B)<br>11.1 In<br>T(<br>CAS #   | Polymerization:<br>Conditions To Avoid:<br>ncompatibility - Materials<br>To Avoid:<br>Hazardous<br>Decomposition or<br>Byproducts:<br>nformation on<br>Toxicological Effects:   | Will occur [ ] Will not occur [ X ]<br>No data available.<br>strong oxidizing agents<br>carbon dioxide<br>carbon monoxide<br>hydrogen chloride gas<br>nitrogen oxides<br>Section 11. Toxicological  | Informa        |                | insert.  |      |
| 10.4       Conditions To Avoid:       No data available.         10.5       Incompatibility - Materials strong oxidizing agents<br>To Avoid:   | 10.4 Co<br>10.5 In<br>10.6 Ha<br>Do<br>By<br>11.1 In<br>To<br>CAS #   | Conditions To Avoid:<br>ncompatibility - Materials<br>To Avoid:<br>lazardous<br>Decomposition or<br>Byproducts:<br>nformation on<br>Toxicological Effects:  | No data available.<br>s strong oxidizing agents<br>carbon dioxide<br>carbon monoxide<br>hydrogen chloride gas<br>nitrogen oxides<br>Section 11. Toxicological   |                | ation          |          |      |
| 10.5       Incompatibility - Materials strong oxidizing agents<br>To Avoid:         10.6       Hazardous       carbon dioxide         Decomposition or       carbon monoxide         Byproducts:       hydrogen chloride gas<br>nitrogen oxides         Section 11. Toxicological Information         To Avoid:         11.1 Information on<br>Toxicological Effects:         CAS #         Hazardous Components (Chemical Name)       NTP         I + Bazardous Components (Chemical Name)       NTP       IARC       ACGIH       OSH/         149888-94-8       1-[[[5-(4-Chlorophenyl)-2-furanyl]methylene]amino]-3-[4-(4-<br>methyl-1-piperazinyl]butyl]-2,4-imidazolidinedione<br>dihydrochloride       n.a.       n.a.       n.a.       n.a.       n.a.       n.a.         Section 12. Ecological Information         Use Section 12. Ecological Information         Bioacumulative No data available.         Degradability:         12.1       Toxicity:       Avoid release into the environment.<br>Runoff from fire control or dilution water may cause pollution.       Image: Section 12.       Image: Section 1  | 10.5 In<br>To<br>10.6 Ha<br>By<br>11.1 In<br>To<br>CAS #  | ncompatibility - Materials<br>To Avoid:<br>Hazardous<br>Decomposition or<br>Byproducts:<br>Information on<br>Toxicological Effects:   | s strong oxidizing agents<br>carbon dioxide<br>carbon monoxide<br>hydrogen chloride gas<br>nitrogen oxides<br>Section 11. Toxicological   |                | ation          |          |      |
| To Avoid:       To Avoid:         10.6       Hazardous       carbon dioxide         Decomposition or       carbon monoxide         Byproducts:       hydrogen chloride gas         nitrogen oxides       nitrogen oxides         Section 11. Toxicological Information         11.1       Information on<br>Toxicological Effects:       The toxicological effects of this product have not been thoroughly studied.         CAS #       Hazardous Components (Chemical Name)       NTP       IARC       ACGIH       OSH/         149888-94-8       1-[[[5-(4-Chlorophenyl)-2-furanyl]methylene]amino]-3-[4-(4-<br>methyl-1-piperazinyl]butyl]-2,4-imidazolidinedione       n.a.       n  | To<br>10.6 Ha<br>Bi<br>11.1 In<br>To<br>CAS #   | o Avoid:<br>lazardous<br>Decomposition or<br>Byproducts:<br>nformation on<br>oxicological Effects:  | carbon dioxide<br>carbon monoxide<br>hydrogen chloride gas<br>nitrogen oxides<br>Section 11. Toxicological  |                | ation          |          |      |
| 10.6       Hazardous carbon dioxide         Decomposition or Byproducts:       hydrogen chloride gas nitrogen oxides         11.1       Information on Toxicological effects of this product have not been thoroughly studied.         Toxicological Effects:       The toxicological effects of this product have not been thoroughly studied.         CAS #       Hazardous Components (Chemical Name)       NTP       IARC       ACGIH       OSH/         149888-94-8       1-[[[5-(4-Chlorophenyl)-2-furanyl]methylene]amino]-3-[4-(4-methyl-1-piperazinyl)butyl]-2,4-imidazolidinedione dihydrochloride       n.a.   | 10.6 Ha<br>Du<br>B <u>1</u><br>11.1 In<br>Ta<br>CAS #   | lazardous<br>Decomposition or<br>Byproducts:<br>nformation on<br>Toxicological Effects:   | carbon monoxide<br>hydrogen chloride gas<br>nitrogen oxides<br>Section 11. Toxicological  |                | ation          |          |      |
| Decomposition or<br>Byproducts:       carbon monoxide<br>hydrogen chloride gas<br>nitrogen oxides         Section 11. Toxicological Information         11.1 Information on<br>Toxicological Effects:         CAS # Hazardous Components (Chemical Name)       NTP       IARC       ACGIH       OSH/<br>OSH/         149888-94-8       1-[[[5-(4-Chlorophenyl)-2-furanyl]methylene]amino]-3-[4-(4-<br>methyl-1-piperazinyl]butyl]-2,4-imidazolidinedione<br>dihydrochloride       n.a.       n.a.       n.a.       n.a.       n.a.         Section 12. Ecological Information         Section 12. Ecological Information         It roxicity:         Avoid release into the environment.<br>Runoff from fire control or dilution water may cause pollution.         Degradability:         12.1       Persistence and<br>Degradability:       No data available.<br>Degradability:       Void ata available.<br>Degradability:       Void ata available.<br>No data available.       Void ata available.         12.4       Mobility in Soil:       No data available.       Void ata available.       Void ata available.         12.5       Results of PBT and vPvB       No data available.<br>assessment:       Void ata available.       Void ata available.   | Di<br>Bi<br>11.1 In<br>To<br>CAS #  | Decomposition or<br>Byproducts:<br>Information on<br>Toxicological Effects:   | carbon monoxide<br>hydrogen chloride gas<br>nitrogen oxides<br>Section 11. Toxicological  |                | ation          |          |      |
| Byproducts: hydrogen chloride gas nitrogen oxides         Section 11. Toxicological Information         The toxicological effects of this product have not been thoroughly studied. Toxicological Effects:         CAS # Hazardous Components (Chemical Name) NTP IARC ACGIH OSH/ 149888-94-8 1-[[[5-(4-ChlorophenyI)-2-furanyI]methylene]amino]-3-[4-(4- methyl-1-piperazinyI)butyI]-2,4-imidazolidinedione dihydrochloride       NTP IARC ACGIH OSH/ 0SH/ 0SH/ 0SH/ 0SH/ 0SH/ 0SH/ 0SH/ 0  | B <u>11.1 In</u><br>TC<br>CAS #   | Byproducts:<br>nformation on<br>oxicological Effects:   | hydrogen chloride gas<br>nitrogen oxides<br>Section 11. Toxicological   |                | ation          |          |      |
| nitrogen oxides         Section 11. Toxicological Information         Section 11. Toxicological Information         The toxicological effects of this product have not been thoroughly studied.<br>Toxicological Effects:         CAS # Hazardous Components (Chemical Name) NTP IARC ACGIH OSH/<br>149888-94-8 1-[[[5-(4-Chlorophenyl)-2-furanyl]methylene]amino]-3-[4-(4-<br>methyl-1-piperazinyl)butyl]-2,4-imidazolidinedione<br>dihydrochloride       n.a.       Image: Section 12. Ecological Information       Section 12. Ecological Effects       Section 12. Ecological Information       Section 12. Ecolog  | I1.1 In<br>To<br>CAS#   | nformation on<br>oxicological Effects:  | nitrogen oxides Section 11. Toxicological   |                | ation          |          |      |
| 11.1       Information on<br>Toxicological Effects:       The toxicological effects of this product have not been thoroughly studied.         CAS #       Hazardous Components (Chemical Name)       NTP       IARC       ACGIH       OSH/         149888-94-8       1-[[[5-(4-Chlorophenyl)-2-furanyl]methylene]amino]-3-[4-(4-<br>methyl-1-piperazinyl])butyl]-2,4-imidazolidinedione<br>dihydrochloride       n.a.       IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII  | To<br>CAS #   | oxicological Effects:   |   |                | ation          |          |      |
| Information on Toxicological Effects:       The toxicological effects of this product have not been thoroughly studied.         CAS #       Hazardous Components (Chemical Name)       NTP       IARC       ACGIH       OSH/         149888-94-8       1-[[[5-(4-Chlorophenyl]-2-furanyl]methylene]amino]-3-[4-(4-<br>methyl-1-piperazinyl]butyl]-2,4-imidazolidinedione<br>dihydrochloride       n.a.       1.a.       1.a.       1.a.       1.a.  | To<br>CAS #   | oxicological Effects:   |   |                |                |          |      |
| CAS #       Hazardous Components (Chemical Name)       NTP       IARC       ACGIH       OSH/         149888-94-8       1-[[[5-(4-Chlorophenyl])-2-furanyl]methylene]amino]-3-[4-(4-<br>methyl-1-piperazinyl]butyl]-2,4-imidazolidinedione<br>dihydrochloride       n.a.   | CAS #   | -   |   |                |                |          |      |
| 149888-94-8       1-[[[5-(4-Chlorophenyl])-2-furanyl]methylene]amino]-3-[4-(4-methyl-1-piperazinyl]butyl]-2,4-imidazolidinedione       n.a.       n.   |   | Hererdeus Com   |   |                |                |          |      |
| methyl-1-piperazinyl)butyl]-2,4-imidazolidinedione<br>dihydrochloride       Section 12. Ecological Information         12.1       Toxicity:       Avoid release into the environment.<br>Runoff from fire control or dilution water may cause pollution.         12.2       Persistence and<br>Degradability:       No data available.<br>Degradability:         12.3       Bioaccumulative<br>Potential:       No data available.         12.4       Mobility in Soil:       No data available.         12.5       Results of PBT and vPvB<br>Acodata available.       No data available.   | 149888-   | Hazardous Com   | ponents (Chemical Name)   | NTP            | IARC           | ACGIH    | OSHA |
| 12.1       Toxicity:       Avoid release into the environment.<br>Runoff from fire control or dilution water may cause pollution.         12.2       Persistence and<br>Degradability:       No data available.         12.3       Bioaccumulative<br>Potential:       No data available.         12.4       Mobility in Soil:       No data available.         12.5       Results of PBT and vPvB       No data available.<br>No data available.  |   | methyl-1-piperazi   |   | n.a.           | n.a.           | n.a.     | n.a. |
| 12.1       Toxicity:       Avoid release into the environment.<br>Runoff from fire control or dilution water may cause pollution.         12.2       Persistence and<br>Degradability:       No data available.         12.3       Bioaccumulative<br>Potential:       No data available.         12.4       Mobility in Soil:       No data available.         12.5       Results of PBT and vPvB<br>assessment:       No data available.   |   |   | Section 12. Ecological Ir   | format         | ion            | <b>I</b> |      |
| 12.2       Persistence and Degradability:       No data available.         12.3       Bioaccumulative Potential:       No data available.         12.4       Mobility in Soil:       No data available.         12.5       Results of PBT and vPvB No data available. assessment:       No data available.   | 2.1 To  | oxicity:  |   |                |                |          |      |
| Degradability:         12.3       Bioaccumulative No data available.         Potential:       No data available.         12.4       Mobility in Soil: No data available.         12.5       Results of PBT and vPvB No data available.         assessment:       No data available.  |   | -   | Runoff from fire control or dilution water ma   | ay cause p     | ollution.      |          |      |
| 12.3       Bioaccumulative       No data available.         Potential:       No data available.         12.4       Mobility in Soil:       No data available.         12.5       Results of PBT and vPvB       No data available.         assessment:       No data available.   |   |   | No data available.  |                |                |          |      |
| 12.4       Mobility in Soil:       No data available.         12.5       Results of PBT and vPvB       No data available.         assessment:       No data available.   | 12.3 Bi   | Bioaccumulative   | No data available.  |                |                |          |      |
| 12.5 Results of PBT and vPvB No data available.<br>assessment:   |   |   | No data available.  |                |                |          |      |
|  | 12.5 R  | Results of PBT and vPvB   |   |                |                |          |      |
| <b>12.0 Olifei auvei se effects.</b> No data available.  |   | Other adverse effects:  | No data available.  |                |                |          |      |



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| 13.1 Waste D   | icnocal Mathad   | Dispose in accordance with lass   | al Considera   | I regulations  |   |
|--|--|---|--|--|---|
|  | visposal Method:   | Dispose in accordance with loca   |  | -  |   |
|  |  | Section 14. Trans   | sport Informa  | ation  |   |
|  | RANSPORT (US D   | -   |  |  |   |
| -  | er Shipping Name:  | Toxic solid, organic, n.o.s. (  | Azimilide dihydroch  | nloride)   |   |
| DOT Hazar  |  | 6.1 POISON  |  |  |   |
| UN/NA Nui  | nber:  | UN2811  | Packing Gr   | oup:   | III   |
|  |  | POISON<br>6   |  |  |   |
|  | RANSPORT (Euro   |   |  | le ride)   |   |
| UN Numbe   | hipping Name:  | Toxic solid, organic, n.o.s. (<br>2811  | Packing Gr   | -  | 111   |
| Hazard Cla   |  | 6.1 - POISON  | racking Gr   | Նսբ.   |   |
|  | ANSPORT (ICAO/IA   |   |  |  |   |
|  | Shipping Name:   | Toxic solid, organic, n.o.s. (  | Azimilide dihvdroch  | nloride)   |   |
|  |  | 2811  | Packing Gr   | ,  | Ш   |
| UN Numbe   |  |   |  |  |   |
| UN NUMBE<br>Hazard Cla   |  | 6.1 - POISON  | IATA Class   | -  | 6.1   |
| Hazard Cla<br>Additional Tra   | SS:  | 6.1 - POISON<br>Transport in accordance with lo<br>When sold in quantities of less t<br>E1, E2, E4, or E5, this item mee<br>Therefore packaging does not h  | cal, state, and fede<br>than or equal to 1 n<br>ets the De Minimis (   | <b>ification:</b><br>ral regulations.<br>hL, or 1 g, with an E<br>Quantities exemptio  | Excepted Quantity Code c<br>on, per IATA 2.6.10.                          |
| Hazard Cla<br>Additional Tra<br>Information:   | iss:<br>nsport   | Transport in accordance with lo<br>When sold in quantities of less<br>E1, E2, E4, or E5, this item mee  | cal, state, and fede<br>than or equal to 1 m<br>ets the De Minimis (<br>have to be labeled a<br>atory Inform   | <b>ification:</b><br>ral regulations.<br>hL, or 1 g, with an E<br>Quantities exemptions<br>as Dangerous Good                     | Excepted Quantity Code c<br>on, per IATA 2.6.10.                          |
| Hazard Cla<br>Additional Tra<br>Information:   | iss:<br>nsport<br>iperfund Amendme   | Transport in accordance with lo<br>When sold in quantities of less<br>E1, E2, E4, or E5, this item mee<br>Therefore packaging does not h<br>Section 15. Regul   | cal, state, and fede<br>than or equal to 1 m<br>ets the De Minimis (<br>have to be labeled a<br>atory Inform   | <b>ification:</b><br>ral regulations.<br>hL, or 1 g, with an E<br>Quantities exemptions<br>as Dangerous Good                     | Excepted Quantity Code c<br>on, per IATA 2.6.10.                          |
| Hazard Cla<br>Additional Tra<br>Information:<br>EPA SARA (Su                         | ISS:<br>Insport<br>Iperfund Amendme<br>Hazardous Comp<br>1-[[[5-(4-Chlorophe   | Transport in accordance with lo<br>When sold in quantities of less<br>E1, E2, E4, or E5, this item mee<br>Therefore packaging does not h<br>Section 15. Regul<br>ents and Reauthorization Act of<br>conents (Chemical Name)<br>enyl)-2-furanyl]methylene]amino<br>piperazinyl)butyl]-2,4-imidazolid           | cal, state, and fede<br>than or equal to 1 m<br>ets the De Minimis (<br>have to be labeled a<br>atory Inform<br>of 1986) Lists<br>S. 302 (EHS)<br>No                                   | ification:<br>ral regulations.<br>nL, or 1 g, with an E<br>Quantities exemption<br>as Dangerous Good<br>ation                    | Excepted Quantity Code c<br>on, per IATA 2.6.10.<br>ds/Excepted Quantity. |
| Hazard Cla<br>Additional Tra<br>Information:<br>EPA SARA (Su<br>CAS #                | perfund Amendme<br>Hazardous Comp<br>1-[[[5-(4-Chlorophe<br>]-3-[4-(4-methyl-1-<br>inedione dihydroch  | Transport in accordance with lo<br>When sold in quantities of less<br>E1, E2, E4, or E5, this item mee<br>Therefore packaging does not h<br>Section 15. Regul<br>ents and Reauthorization Act of<br>conents (Chemical Name)<br>enyl)-2-furanyl]methylene]amino<br>piperazinyl)butyl]-2,4-imidazolid           | cal, state, and fede<br>than or equal to 1 m<br>ets the De Minimis (<br>have to be labeled a<br>atory Inform<br>of 1986) Lists<br>S. 302 (EHS)<br>No                                   | ification:<br>ral regulations.<br>nL, or 1 g, with an E<br>Quantities exemption<br>as Dangerous Good<br>ation<br>S. 304 RQ<br>No | Excepted Quantity Code c<br>on, per IATA 2.6.10.<br>ds/Excepted Quantity. |
| Hazard Cla<br>Additional Tra<br>Information:<br>EPA SARA (Su<br>CAS #<br>149888-94-8 | Iperfund Amendme<br>Hazardous Comp<br>1-[[[5-(4-Chlorophe<br>]-3-[4-(4-methyl-1-<br>inedione dihydroch<br>Hazardous Comp<br>1-[[[5-(4-Chlorophe<br>]-1-[[[5-(4-Chlorophe | Transport in accordance with lo<br>When sold in quantities of less<br>E1, E2, E4, or E5, this item mee<br>Therefore packaging does not h<br>Section 15. Regul<br>ents and Reauthorization Act of<br>conents (Chemical Name)<br>enyl)-2-furanyl]methylene]amino<br>piperazinyl)butyl]-2,4-imidazolid<br>noride | cal, state, and fede<br>than or equal to 1 m<br>ets the De Minimis (<br>have to be labeled a<br>atory Inform<br>of 1986) Lists<br>S. 302 (EHS)<br>No<br>Other US EPA o<br>CAA HAP,ODC: | ification:<br>ral regulations.<br>hL, or 1 g, with an E<br>Quantities exemption<br>as Dangerous Good<br>ation<br>S. 304 RQ<br>No | Excepted Quantity Code c<br>on, per IATA 2.6.10.<br>ds/Excepted Quantity. |



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|                               | Section 16. Other Information  |
|-------------------------------|--|
| Revision Date:                | 08/18/2019   |
| Additional Information About  | No data available.   |
| This Product:                 |  |
| Company Policy or Disclaimer: | DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. |