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|            |  | C  |  | ///////////////////////////////////   |   | بمعادله الاست   |  |
|------------|--|--|--|---|---|---|--|
|            |  | Section 1. Id  | entification of the Substar  | nce/Mixture and of  | the Company/U   | ndertaking  |  |
| .1         | Product  |  | 27632  |   |   |   |  |
|            | Product  |  | SR 16832   |   |   |   |  |
|            | Synony   | ms:  | 2-chloro-N-(6-methoxy-4  | -quinolinyl)-5-nitro-b  | enzamide;   |   |  |
| .2         | Relevant identified uses of the substance or mixture and uses advised against:           |  |  |   |   |   |  |
|            | <b>Relevant identified uses:</b> For research use only, not for human or veterinary use. |  |  |   |   |   |  |
| .3         | Details of the Supplier of the Safety Data Sheet:  |  |  |   |   |   |  |
|            | Comp   | any Name:  | Cayman Chemical Comp   | bany  |   |   |  |
|            |  |  | 1180 E. Ellsworth Rd.  |   |   |   |  |
|            | Web s  | ite address:   | Ann Arbor, MI 48108<br>www.caymanchem.com  |   |   |   |  |
|            |  | nation:  | Cayman Chemical Com  | any   | +1 (73  | 4)971-3335  |  |
| .4         |  | ncy telephone numb   |  | July  |   |   |  |
|            | -  | jency Contact:   | CHEMTREC Within USA  | and Canada  | +1 (80  | 0)424-9300  |  |
|            | Lineig   |  | CHEMTREC Outside US  |   |   | )3)527-3887   |  |
|            |  |  | Section 2. Ha  | zarda Idantifi  |   | ,   |  |
|            | <u> </u>   |  |  |   | Jalion  |   |  |
| 2.1        |  | cation of the Substa   | nce or Mixture:  |   |   |   |  |
|            | Label Elements:  |  |  |   |   |   |  |
| 2.2        | Label E  | lements:   |  |   |   |   |  |
| 2.2        | GHS S  | Signal Word:   | None   |   |   |   |  |
| 2.2        | GHS S<br>GHS I   | Signal Word:<br>Hazard Phrases:  |  |   |   |   |  |
| 2.2        | GHS S<br>GHS I   | Signal Word:<br>Hazard Phrases:  | None<br>ently available data this sub  | stance or mixture is  | not classifiable ac   | ccording to GHS.  |  |
| 2.2        | GHS S<br>GHS I<br>Based  | Signal Word:<br>Hazard Phrases:  | ently available data this sub  | stance or mixture is  | not classifiable ac   | ccording to GHS.  |  |
| 2.2        | GHS S<br>GHS I<br>Based<br>GHS I   | Signal Word:<br>Hazard Phrases:<br>I on evaluation of curr   | ently available data this sub  | stance or mixture is  | not classifiable ac   | ccording to GHS.  |  |
| 2.2        | GHS S<br>GHS I<br>Based<br>GHS I<br>No ph  | Signal Word:<br>Hazard Phrases:<br>I on evaluation of curr<br>Precaution Phrases:  | ently available data this sub  | stance or mixture is  | not classifiable ad   | ccording to GHS.  |  |
| 2.2        | GHS S<br>GHS I<br>Based<br>GHS I<br>No ph<br>GHS I                                       | Signal Word:<br>Hazard Phrases:<br>I on evaluation of curr<br>Precaution Phrases:<br>rases apply.  | ently available data this sub  | stance or mixture is  | not classifiable ac   | ccording to GHS.  |  |
| 2.2        | GHS S<br>GHS I<br>Based<br>GHS I<br>No ph<br>GHS I<br>No ph                              | Signal Word:<br>Hazard Phrases:<br>I on evaluation of curr<br>Precaution Phrases:<br>rases apply.<br>Response Phrases:<br>rases apply.<br>Storage and Disposa  | ently available data this sub  |   |   | ccording to GHS.  |  |
|            | GHS S<br>GHS I<br>Based<br>GHS I<br>No ph<br>GHS I<br>Please                             | Signal Word:<br>Hazard Phrases:<br>I on evaluation of curr<br>Precaution Phrases:<br>rases apply.<br>Response Phrases:<br>rases apply.<br>Storage and Disposa<br>e refer to Section 7 for  | ently available data this sub<br>al Phrases:<br>r Storage and Section 13 for   | r Disposal informatio   | n.  |   |  |
|            | GHS S<br>GHS I<br>Based<br>GHS I<br>No ph<br>GHS S<br>Please<br>Advers                   | Signal Word:<br>Hazard Phrases:<br>I on evaluation of curr<br>Precaution Phrases:<br>rases apply.<br>Response Phrases:<br>rases apply.<br>Storage and Disposa<br>e refer to Section 7 for<br>e Human Health  | ently available data this sub<br><b>al Phrases:</b><br>r Storage and Section 13 for<br>Material may be irritating to t   | r Disposal informatio<br>he mucous membra   | n.<br>nes and upper res   |   |  |
|            | GHS S<br>GHS I<br>Based<br>GHS I<br>No ph<br>GHS S<br>Please<br>Advers                   | Signal Word:<br>Hazard Phrases:<br>I on evaluation of curr<br>Precaution Phrases:<br>rases apply.<br>Response Phrases:<br>rases apply.<br>Storage and Disposa<br>e refer to Section 7 for<br>e Human Health<br>and Symptoms:                               | ently available data this sub<br>al Phrases:<br>r Storage and Section 13 for<br>Material may be irritating to t<br>May be harmful by inhalatior  | r Disposal informatio<br>he mucous membran<br>n, ingestion, or skin a   | n.<br>nes and upper res<br>bsorption.   |   |  |
|            | GHS S<br>GHS I<br>Based<br>GHS I<br>No ph<br>GHS S<br>Please<br>Advers                   | Signal Word:<br>Hazard Phrases:<br>I on evaluation of curr<br>Precaution Phrases:<br>rases apply.<br>Response Phrases:<br>rases apply.<br>Storage and Disposa<br>e refer to Section 7 for<br>e Human Health<br>and Symptoms:                               | ently available data this sub<br>al Phrases:<br>r Storage and Section 13 for<br>Material may be irritating to t<br>May be harmful by inhalatior<br>May cause eye, skin, or resp  | r Disposal informatio<br>he mucous membran<br>n, ingestion, or skin a<br>piratory system irritati   | n.<br>nes and upper res<br>bsorption.<br>ion.   | spiratory tract.  |  |
|            | GHS S<br>GHS I<br>Based<br>GHS I<br>No ph<br>GHS S<br>Please<br>Advers                   | Signal Word:<br>Hazard Phrases:<br>I on evaluation of curr<br>Precaution Phrases:<br>rases apply.<br>Response Phrases:<br>rases apply.<br>Storage and Disposa<br>e refer to Section 7 for<br>e Human Health<br>and Symptoms:<br>N                          | ently available data this sub<br>al Phrases:<br>r Storage and Section 13 for<br>Material may be irritating to t<br>May be harmful by inhalatior<br>May cause eye, skin, or resp<br>To the best of our knowledge  | r Disposal informatio<br>he mucous membran<br>n, ingestion, or skin a<br>piratory system irritati<br>e, the toxicological pr                  | n.<br>nes and upper res<br>bsorption.<br>ion.<br>roperties have not                           | spiratory tract.<br>t been thoroughly investiga               |  |
| 2.3        | GHS S<br>GHS I<br>Based<br>GHS I<br>No ph<br>GHS S<br>Please<br>Advers                   | Signal Word:<br>Hazard Phrases:<br>I on evaluation of curr<br>Precaution Phrases:<br>rases apply.<br>Response Phrases:<br>rases apply.<br>Storage and Disposa<br>e refer to Section 7 for<br>e Human Health<br>and Symptoms:<br>N                          | ently available data this sub<br>al Phrases:<br>r Storage and Section 13 for<br>Material may be irritating to t<br>May be harmful by inhalatior<br>May cause eye, skin, or resp  | r Disposal informatio<br>he mucous membran<br>n, ingestion, or skin a<br>piratory system irritati<br>e, the toxicological pr                  | n.<br>nes and upper res<br>bsorption.<br>ion.<br>roperties have not                           | spiratory tract.<br>t been thoroughly investiga               |  |
| 2.3        | GHS S<br>GHS I<br>Based<br>GHS I<br>No ph<br>GHS S<br>Please<br>Advers<br>Effects        | Signal Word:<br>Hazard Phrases:<br>I on evaluation of curr<br>Precaution Phrases:<br>rases apply.<br>Response Phrases:<br>rases apply.<br>Storage and Disposa<br>e refer to Section 7 for<br>e Human Health<br>and Symptoms:<br>Section<br>Hazardous Compo | ently available data this sub<br>al Phrases:<br>r Storage and Section 13 for<br>Material may be irritating to t<br>May be harmful by inhalatior<br>May cause eye, skin, or resp<br>Fo the best of our knowledge<br>on 3. Composition<br>nents (Chemical Name)/ | r Disposal informatio<br>he mucous membran<br>n, ingestion, or skin a<br>piratory system irritati<br>e, the toxicological pr                  | n.<br>nes and upper res<br>bsorption.<br>ion.<br>roperties have not                           | spiratory tract.<br>t been thoroughly investiga               |  |
| 2.3        | GHS S<br>GHS I<br>Based<br>GHS I<br>No ph<br>GHS S<br>Please<br>Advers<br>Effects        | Signal Word:<br>Hazard Phrases:<br>I on evaluation of curr<br>Precaution Phrases:<br>rases apply.<br>Response Phrases:<br>rases apply.<br>Storage and Disposa<br>e refer to Section 7 for<br>e Human Health<br>and Symptoms:<br>Section<br>Section         | ently available data this sub<br>al Phrases:<br>r Storage and Section 13 for<br>Material may be irritating to t<br>May be harmful by inhalatior<br>May cause eye, skin, or resp<br>Fo the best of our knowledge<br>on 3. Composition<br>nents (Chemical Name)/ | r Disposal informatio<br>the mucous membra<br>n, ingestion, or skin a<br>piratory system irritati<br>e, the toxicological pr<br>n/Information | n.<br>nes and upper res<br>bsorption.<br>ion.<br>roperties have not                           | spiratory tract.<br>t been thoroughly investiga<br><b>nts</b> |  |
| 2.3<br>CAS | GHS S<br>GHS I<br>Based<br>GHS I<br>No ph<br>GHS S<br>Please<br>Advers<br>Effects        | Signal Word:<br>Hazard Phrases:<br>I on evaluation of curr<br>Precaution Phrases:<br>rases apply.<br>Response Phrases:<br>rases apply.<br>Storage and Disposa<br>e refer to Section 7 for<br>e Human Health<br>and Symptoms:<br>Section<br>Hazardous Compo | ently available data this sub<br>al Phrases:<br>r Storage and Section 13 for<br>Material may be irritating to t<br>May be harmful by inhalatior<br>May cause eye, skin, or resp<br>Fo the best of our knowledge<br>on 3. Composition<br>nents (Chemical Name)/ | r Disposal informatio<br>the mucous membra<br>n, ingestion, or skin a<br>piratory system irritati<br>e, the toxicological pr<br>n/Information | n.<br>nes and upper res<br>bsorption.<br>ion.<br>roperties have not<br>on Ingredie<br>EC No./ | spiratory tract.<br>t been thoroughly investiga<br><b>nts</b> |  |

Multi-region format



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|     |   | Section 4. First Aid Measures   |  |  |  |  |
|-----|---|---|--|--|--|--|
| 4.1 | Description of First Aid  |   |  |  |  |  |
|     | Measures:   |   |  |  |  |  |
|     | In Case of Inhalation:  | Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel.<br>Get immediate medical attention.   |  |  |  |  |
|     | In Case of Skin Contact:  | Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.                             |  |  |  |  |
|     | In Case of Eye Contact:   | Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.   |  |  |  |  |
|     | In Case of Ingestion:   | Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel. |  |  |  |  |
|     |   | Section 5. Fire Fighting Measures   |  |  |  |  |
| 5.1 | Suitable Extinguishing  | Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.   |  |  |  |  |
|     | Media:  | Use water spray to cool fire-exposed containers.  |  |  |  |  |
|     | Unsuitable Extinguishing<br>Media:  | g A solid water stream may be inefficient.  |  |  |  |  |
| 5.2 | Flammable Properties an<br>Hazards:   | I <b>d</b> No data available.   |  |  |  |  |
|     |   | No data available.  |  |  |  |  |
|     | Flash Pt:   | No data.  |  |  |  |  |
|     | Explosive Limits:   | LEL: No data. UEL: No data.   |  |  |  |  |
|     | Autoignition Pt:  | No data.  |  |  |  |  |
| 5.3 | Fire Fighting Instructions  | s: As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.                                  |  |  |  |  |
|     |   | Section 6. Accidental Release Measures  |  |  |  |  |
| 6.1 | Protective Precautions,   | Avoid raising and breathing dust, and provide adequate ventilation.   |  |  |  |  |
|     | Protective Equipment an   | d As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator,   |  |  |  |  |
|     | Emergency Procedures:   | and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).  |  |  |  |  |
| 6.2 | Environmental   | Take steps to avoid release into the environment, if safe to do so.   |  |  |  |  |
|     | Precautions:  |   |  |  |  |  |
| 6.3 | Methods and Material For Contain spill and collect, as appropriate.<br>Containment and Cleaning Transfer to a chemical waste container for disposal in accordance with local regulations. |   |  |  |  |  |
|     | Up:   |   |  |  |  |  |
|     |   | Section 7. Handling and Storage   |  |  |  |  |
| 7.1 | Precautions To Be Taker   | Avoid breathing dust/fume/gas/mist/vapours/spray.   |  |  |  |  |
|     | in Handling:  | Avoid prolonged or repeated exposure.   |  |  |  |  |
| 7.2 | Precautions To Be Taker   | NKeep container tightly closed.   |  |  |  |  |
|     | in Storing:   | Store in accordance with information listed on the product insert.  |  |  |  |  |
|     | Sec   | tion 8. Exposure Controls/Personal Protection   |  |  |  |  |
| 8.1 | Exposure Parameters:  |   |  |  |  |  |
|     |   |   |  |  |  |  |

Multi-region format



|       | 12000  | SR 16832 Revi  | ision: 08/17/2019  |  |  |  |  |
|-------|--|--|--------------------|--|--|--|--|
|       |  |  |                    |  |  |  |  |
| 8.2   | Exposure Controls:   |  |                    |  |  |  |  |
| 8.2.1 |  | Use process enclosures, local exhaust ventilation, or other engineering controls to<br>levels below recommended exposure limits. | o control airborne |  |  |  |  |
| 8.2.2 | Personal protection equipment:   |  |                    |  |  |  |  |
|       |  |  |                    |  |  |  |  |
|       | Eye Protection: Safety glasses   Protective Gloves: Compatible chemical-resistant gloves |  |                    |  |  |  |  |
|       | Other Protective Clothing:Lab coat   |  |                    |  |  |  |  |
|       | -  | NIOSH approved respirator, as conditions warrant.  |                    |  |  |  |  |
|       | (Specify Type):  |  |                    |  |  |  |  |
|       | Work/Hygienic/Maintenan  | Do not take internally.  |                    |  |  |  |  |
|       |  | Facilities storing or utilizing this material should be equipped with an eyewash an  | d a safety showe   |  |  |  |  |
|       | ,  | Wash thoroughly after handling.  |                    |  |  |  |  |
|       | I  | No data available.   |                    |  |  |  |  |
|       | Se   | ection 9. Physical and Chemical Properties   |                    |  |  |  |  |
| 9.1   | Information on Basic Physi   | cal and Chemical Properties  |                    |  |  |  |  |
|       | Physical States:   | []Gas []Liquid [X]Solid  |                    |  |  |  |  |
|       | Appearance and Odor:   | A crystalline solid  |                    |  |  |  |  |
|       | pH:  | 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 Hg):  | mm No data.  |                    |  |  |  |  |
|       | Vapor Density (vs. Air = 1):   | No data.   |                    |  |  |  |  |
|       | Specific Gravity (Water = 1  | ): No data.  |                    |  |  |  |  |
|       | Solubility in Water:   | No data.   |                    |  |  |  |  |
|       | Solubility Notes:  | Soluble in: DMSO;  |                    |  |  |  |  |
|       | Octanol/Water Partition<br>Coefficient:  | No data.   |                    |  |  |  |  |
|       | Autoignition Pt:   | No data.   |                    |  |  |  |  |
|       |  |  |                    |  |  |  |  |
|       | Decomposition Temperatu  |  |                    |  |  |  |  |
|       | Decomposition Temperatu<br>Viscosity:  | No data.   |                    |  |  |  |  |
| 9.2   | Viscosity:   |  |                    |  |  |  |  |
| 9.2   |  |  |                    |  |  |  |  |



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|                 |                                |                      | Section 10. Stability a  | nd Reacti        | vity            |         |      |  |
|-----------------|--------------------------------|----------------------|--|------------------|-----------------|---------|------|--|
| 10.1            | Reactivity: No data available. |                      |  |                  |                 |         |      |  |
| 10.2            | Stability                      | :                    | Unstable [ ] Stable [ X ]  |                  |                 |         |      |  |
| 10.3            | Stability                      | Note(s):             | Stable if stored in accordance with info   | rmation listed   | on the product  | insert. |      |  |
| Polymerization: |                                |                      | Will occur [ ] Will not occur [ X ]  |                  |                 |         |      |  |
| 10.4            | Conditio                       | ns To Avoid:         | No data available.   |                  |                 |         |      |  |
| 10.5            | Incompa                        | tibility - Materials | strong oxidizing agents  |                  |                 |         |      |  |
|                 | To Avoid                       | 1:                   |  |                  |                 |         |      |  |
| 10.6            | Hazardous                      |                      | carbon dioxide   |                  |                 |         |      |  |
|                 | Decomp                         | osition or           | carbon monoxide  |                  |                 |         |      |  |
|                 | Byprodu                        | cts:                 | hydrogen chloride gas  |                  |                 |         |      |  |
|                 |                                |                      | nitrogen oxides  |                  |                 |         |      |  |
|                 |                                |                      | Section 11. Toxicologic  | al Informa       | ation           |         |      |  |
| 11.1            | Informat                       | ion on               | The toxicological effects of this produc   | t have not beer  | n thoroughly st | udied.  |      |  |
|                 | Toxicolo                       | gical Effects:       |  |                  |                 |         |      |  |
| CAS             | #                              | Hazardous Com        | ponents (Chemical Name)  | NTP              | IARC            | ACGIH   | OSHA |  |
| 2088            | 135-12-8                       | SR 16832             |  | n.a.             | n.a.            | n.a.    | n.a. |  |
|                 |                                |                      | Section 12. Ecologica  | <br>L Informat   | ion             |         | -    |  |
| 40.4            | Taulaltu                       |                      |  | Πιοπιαι          |                 |         |      |  |
| 12.1            |                                |                      | Avoid release into the environment.<br>Runoff from fire control or dilution water may cause pollution. |                  |                 |         |      |  |
|                 |                                |                      |  |                  |                 |         |      |  |
| 12.2            | Persiste                       |                      | No data available.   |                  |                 |         |      |  |
|                 | Degrada                        | -                    | <b>.</b>   |                  |                 |         |      |  |
| 12.3            | Bioaccu                        |                      | No data available.   |                  |                 |         |      |  |
|                 | Potentia                       |                      |  |                  |                 |         |      |  |
| 12.4            | Mobility                       |                      | No data available.   |                  |                 |         |      |  |
| 12.5            | Results                        | of PBT and vPvB      | No data available.   |                  |                 |         |      |  |
|                 | assessm                        |                      |  |                  |                 |         |      |  |
| 12.6            | Other ad                       | verse effects:       | No data available.   |                  |                 |         |      |  |
|                 |                                |                      | Section 13. Disposal C   | onsiderat        | ions            |         |      |  |
| 13.1            | Waste D                        | isposal Method:      | Dispose in accordance with local, state  | e, and federal r | egulations.     |         |      |  |
|                 |                                |                      | Section 14. Transpor   | t Informat       | ion             |         |      |  |
| 14.1            | LAND T                         | RANSPORT (US I       | DOT):  |                  |                 |         |      |  |
| D               | OT Prope                       | r Shipping Name:     | Not dangerous goods.   |                  |                 |         |      |  |
| D               | OT Hazaro                      | d Class:             |  |                  |                 |         |      |  |
|                 | N/NA Num                       | nber:                |  |                  |                 |         |      |  |
| U               |                                | RANSPORT (Euro       | opean ADR/RID):  |                  |                 |         |      |  |
| U<br>14.1       | LAND T                         |                      | Not developmente de ede  |                  |                 |         |      |  |
| 14.1            |                                | nipping Name:        | Not dangerous goods.   |                  |                 |         |      |  |
| 14.1<br>A       |                                |                      | Not dangerous goods.   |                  |                 |         |      |  |
| 14.1<br>A<br>U  | DR/RID SI                      | :                    | Not dangerous goods.   |                  |                 |         |      |  |
| 14.1<br>A<br>U  | DR/RID SI<br>N Number          | :                    | Not dangerous goods.   |                  |                 |         |      |  |
| 14.1<br>A<br>U  | DR/RID SI<br>N Number          | :                    | Not dangerous goods.   |                  |                 |         |      |  |
| 14.1<br>A<br>U  | DR/RID SI<br>N Number          | :                    | Not dangerous goods.   |                  |                 |         |      |  |

| 4      |
|--------|
|        |
| Calman |
| Caynan |

14.3 AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Not dangerous goods.

Transport in accordance with local, state, and federal regulations.

Information:

**Additional Transport** 

# Section 15. Regulatory Information

| CAS #                                | Hazardous Components (Chemical Name) |  | S. 302 (EHS)  | S. 304 RQ   | S. 313 (TRI) |  |
|--------------------------------------|--------------------------------------|--|---|-------------|--------------|--|
| 2088135-12-8                         | SR 16832                             |  | No  | No          | No           |  |
| CAS #                                | Hazardous Components (Chemical Name) |  | Other US EPA or S   | State Lists | •            |  |
| 2088135-12-8                         | SR 16832                             |  | CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA<br>PROP.65: No |             |              |  |
| Regulatory Information<br>Statement: |                                      | This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC)<br>No.1272/2008.   |   |             |              |  |
|                                      |                                      | Section 16. Oth  | ner Information   | า           |              |  |
| Revision Date:                       |                                      | 08/17/2019   |   |             |              |  |
| Additional Info                      | rmation 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. |   |             |              |  |