

Revision: 06/24/2019 Supersedes Revision: 02/17/2014

| according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 2015/830 and US OSHA HCS 2015 |  |   |  |                        |                         |                                      |  |
|---|--|---|--|------------------------|-------------------------|--------------------------------------|--|
|   |  | Section 1. Ide  | entification of the Substan  | ce/Mixture and of t    | he Company/Ur           | ndertaking                           |  |
| 1.1   | Product<br>Product<br>Synonyi  | Name:   | 14544<br>BB-22 7-hydroxyisoquino<br>isoquinolin-7-yl 1-(cycloh                             |                        | e-3-carboxylate;        |                                      |  |
| 1.2   |  |   | ne substance or mixture a  | -                      | -                       |                                      |  |
|   |  | Int identified uses:  | For research use only, no  | ot for human or veter  | inary use.              |                                      |  |
| 1.3   |  | of the Supplier of the<br>any Name:                             | Safety Data Sheet:<br>Cayman Chemical Comp<br>1180 E. Ellsworth Rd.<br>Ann Arbor, MI 48108 | any                    |                         |                                      |  |
|   | Web s  | ite address:  | www.caymanchem.com   |                        |                         |                                      |  |
|   | Inform   | ation:  | Cayman Chemical Comp   | any                    | +1 (734                 | 4)971-3335                           |  |
| 1.4   | Emerge   | ncy telephone numbe   | er:  |                        |                         |                                      |  |
|   | Emerg  | ency Contact:   | CHEMTREC Within USA  |                        |                         | 0)424-9300                           |  |
|   |  |   | CHEMTREC Outside US  | A and Canada:          | +1 (703                 | 3)527-3887                           |  |
|   |  |   | Section 2. Haz   | zards Identific        | ation                   |                                      |  |
| 2.1   | Classific  | cation of the Substan   | ice or Mixture:  |                        |                         |                                      |  |
| 2.2   | Label El   | ements:   |  |                        |                         |                                      |  |
|   | GHS S  | ignal Word:   | None   |                        |                         |                                      |  |
|   | GHS F  | lazard Phrases:   |  |                        |                         |                                      |  |
|   | Based  | on evaluation of curre  | ently available data this subs   | stance or mixture is r | not classifiable ac     | cording to GHS.                      |  |
|   | GHS F  | Precaution Phrases:   |  |                        |                         |                                      |  |
|   | No phi   | ases apply.   |  |                        |                         |                                      |  |
|   | GHS F  | Response Phrases:   |  |                        |                         |                                      |  |
|   | No phi   | ases apply.   |  |                        |                         |                                      |  |
|   | GHS S  | storage and Disposal  | Phrases:   |                        |                         |                                      |  |
|   | Please   | e refer to Section 7 for  | Storage and Section 13 for   | Disposal information   | 1.                      |                                      |  |
| 2.3   | 2.3 Adverse Human Health Material may be irritating to the mucous membranes and upper respiratory tract. |   |  |                        |                         |                                      |  |
|   | Effects and Symptoms: May be harmful by inhalation, ingestion, or skin absorption.                       |   |  |                        |                         |                                      |  |
|   |  |   | ay cause eye, skin, or resp  |                        |                         | han a dhanna a bha i an an dian da d |  |
| To the best of our knowledge, the toxicological properties have not been thoroughly in          |  |   |  |                        |                         |                                      |  |
|   |  | Sectio  | n 3. Composition   | /Information c         | on Ingredier            | nts                                  |  |
|   |  | Hazardous Components (Chemical Name)/<br>REACH Registration No. |  | Concentration          | EC No./<br>EC Index No. | GHS Classification                   |  |
| NA BB-2<br>NA   |  | BB-22 7-hydroxyisoquinoline isomer                              |  | 100.0 %                | NA<br>NA                | No data available.                   |  |
|   |  |   |  |                        |                         |                                      |  |



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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: | a A solid water stream may be inefficient.  |
| 5.2 | Flammable Properties an            | dNo data available.   |
|     | Hazards:                           |   |
|     |                                    | 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<br>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 and           | 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<br>Precautions:      | Take steps to avoid release into the environment, if safe to do so.   |
| 6.3 |                                    | r Contain spill and collect, as appropriate.  |
|     | Containment and Cleanir            | ngTransfer to a chemical waste container for disposal in accordance with local regulations.   |
|     | Up:                                |   |
|     |                                    | Section 7. Handling and Storage   |
| 7.1 | Precautions To Be Taken            | Avoid breathing dust/fume/gas/mist/vapours/spray.   |
|     | in Handling:                       | Avoid prolonged or repeated exposure.   |
| 7.2 | Precautions To Be Taken            | Neep 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:               |   |
|     |                                    |   |



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| 8.2   | Exposure Controls:                                      |   |  |  |  |  |  |  |
| 8.2.1 |   | Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne    |  |  |  |  |  |  |
|       | ,   | levels below recommended exposure limits.   |  |  |  |  |  |  |
| 8.2.2 |   |   |  |  |  |  |  |  |
|       | -   | Safety glasses  |  |  |  |  |  |  |
|       | Protective Gloves: Compatible chemical-resistant gloves |   |  |  |  |  |  |  |
|       | Other Protective Clothing:Lab coat                      |   |  |  |  |  |  |  |
|       | Respiratory Equipment                                   | 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 and a safety shower    |  |  |  |  |  |  |
|       |   | Wash thoroughly after handling.   |  |  |  |  |  |  |
|       | ١   | No data available.  |  |  |  |  |  |  |
|       | Se  | 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   |  |  |  |  |  |  |
|       | 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 r                            | mm No data.   |  |  |  |  |  |  |
|       | Hg):  |   |  |  |  |  |  |  |
|       | Vapor Density (vs. Air = 1):                            | No data.  |  |  |  |  |  |  |
|       | Specific Gravity (Water = 1)                            | ): No data.   |  |  |  |  |  |  |
|       | Solubility in Water:                                    | No data.  |  |  |  |  |  |  |
|       | Solubility Notes:                                       | ~0.3 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2); ~1 mg/ml in EtOH; ~10 mg/ml in DMSO ~14 mg/ml in DMF; |  |  |  |  |  |  |
|       | Octanol/Water Partition                                 | No data.  |  |  |  |  |  |  |
|       | Coefficient:  |   |  |  |  |  |  |  |
|       | Autoignition Pt:  | No data.  |  |  |  |  |  |  |
|       | Decomposition Temperatur                                | re: No data.  |  |  |  |  |  |  |
|       | Viscosity:  | No data.  |  |  |  |  |  |  |
| 9.2   | Other Information                                       |   |  |  |  |  |  |  |
|       | Percent Volatile:                                       | No data.  |  |  |  |  |  |  |
|       | Molecular Formula & Weigh                               |   |  |  |  |  |  |  |
|       |   |   |  |  |  |  |  |  |
|       |   |   |  |  |  |  |  |  |



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|---|--|---|--|----------------|---------------|-----------------|---------------|--|--|
|   |  |   | Section 10. Stability and  | Reactiv        | /ity          |                 |               |  |  |
| 10.1  | Reactivity:  |   | No data available.   |                |               |                 |               |  |  |
| 10.2  | Stability:   |   | Unstable [ ] Stable [ X ]  |                |               |                 |               |  |  |
| 10.3  | Stability No   | ote(s):   | Stable if stored in accordance with information  | ation listed o | n the product | insert.         |               |  |  |
| Polymerization:                                     |  |   | Will occur [ ] Will not occur [ X ]  |                |               |                 |               |  |  |
| 10.4 Conditions To Avoid:                           |  |   | No data available.   |                |               |                 |               |  |  |
| 10.5 Incompatibility - Materials No data available. |  |   |  |                |               |                 |               |  |  |
| To Avoid:   |  |   |  |                |               |                 |               |  |  |
| 10.6  | Hazardous  | tion or   | No data available.   |                |               |                 |               |  |  |
|   | Decomposi<br>Byproducts  |   |  |                |               |                 |               |  |  |
|   | Byproducta   |   | Castien 11 Toxicalerical   |                | 4:0.0         |                 |               |  |  |
|   |  |   | Section 11. Toxicological  |                |               |                 |               |  |  |
| 11.1  | Information  |   | The toxicological effects of this product ha   | ve not been    | thoroughly st | udied.          |               |  |  |
|   | Toxicologic  |   |  | 1              |               |                 |               |  |  |
| CAS   |  |   | ponents (Chemical Name)  | NTP            | IARC          | ACGIH           | OSHA          |  |  |
|   | NA BI  | B-22 7-hydroxyi   | soquinoline isomer   | n.a.           | n.a.          | n.a.            | n.a.          |  |  |
|   |  |   | Section 12. Ecological Ir  | nformati       | on            |                 |               |  |  |
| 12.1  | Toxicity:  |   | Avoid release into the environment.  |                |               |                 |               |  |  |
|   |  |   | Runoff from fire control or dilution water may cause pollution.  |                |               |                 |               |  |  |
| 12.2  | Persistence  | e and   | No data available.   |                |               |                 |               |  |  |
|   | Degradabil   | -   |  |                |               |                 |               |  |  |
| 12.3  | Bioaccumu<br>Potential:  | lative  | No data available.   |                |               |                 |               |  |  |
| 12.4  |  | Soile   | No data available.   |                |               |                 |               |  |  |
| 12.4  | 2.4 Mobility in Soil:  |   | No data available.   |                |               |                 |               |  |  |
| 125   | DACINEC AT   |   |  |                |               |                 |               |  |  |
| 12.5  |  | <del>.</del>  |  |                |               |                 |               |  |  |
|   | assessmen  |   | No data available.   |                |               |                 |               |  |  |
| 12.5<br>12.6  |  |   | No data available.   | aidarati       | 0.000         |                 |               |  |  |
| 12.6  | assessmen<br>Other adve  | rse effects:  | Section 13. Disposal Cor   |                |               |                 |               |  |  |
|   | assessmen<br>Other adve  |   | Section 13. Disposal Con<br>Dispose in accordance with local, state, an  | nd federal re  | gulations.    |                 |               |  |  |
| 12.6  | assessmen<br>Other adve  | rse effects:  | Section 13. Disposal Cor   | nd federal re  | gulations.    |                 |               |  |  |
| 12.6  | assessmen<br>Other adve<br>Waste Disp  | rse effects:  | Section 13. Disposal Con<br>Dispose in accordance with local, state, an<br>Section 14. Transport In                                  | nd federal re  | gulations.    |                 |               |  |  |
| 12.6<br>13.1<br>14.1<br>D                           | assessmen<br>Other adve<br>Waste Disp<br>LAND TRA<br>OT Proper S   | rse effects:<br>osal Method:<br>NSPORT (US I  | Section 13. Disposal Con<br>Dispose in accordance with local, state, an<br>Section 14. Transport In<br>DOT):                         | nd federal re  | gulations.    |                 |               |  |  |
| 12.6<br>13.1<br>14.1<br>D                           | assessmen<br>Other adve<br>Waste Disp<br>LAND TRA<br>OT Proper S<br>OT Hazard C  | rse effects:<br>osal Method:<br>NSPORT (US I<br>hipping Name:<br>lass:                                      | Section 13. Disposal Con<br>Dispose in accordance with local, state, an<br>Section 14. Transport In<br>DOT):                         | nd federal re  | gulations.    |                 |               |  |  |
| 12.6<br>13.1<br>14.1<br>D <sup>i</sup><br>U         | assessmen<br>Other adve<br>Waste Disp<br>LAND TRA<br>OT Proper S<br>OT Hazard C<br>N/NA Numbe                            | nse effects:<br>osal Method:<br>NSPORT (US I<br>hipping Name:<br>lass:<br>er:                               | Section 13. Disposal Con<br>Dispose in accordance with local, state, ar<br>Section 14. Transport In<br>DOT):<br>Not dangerous goods. | nd federal re  | gulations.    |                 |               |  |  |
| 12.6<br>13.1<br>14.1<br>D <sup>1</sup><br>U<br>14.1 | assessmen<br>Other adve<br>Waste Disp<br>LAND TRA<br>OT Proper S<br>OT Hazard C<br>N/NA Numbe<br>LAND TRA                | rse effects:<br>osal Method:<br>NSPORT (US I<br>hipping Name:<br>lass:<br>er:<br>NSPORT (Euro               | Section 13. Disposal Con<br>Dispose in accordance with local, state, an<br>Section 14. Transport In<br>DOT):<br>Not dangerous goods. | nd federal re  | gulations.    |                 |               |  |  |
| 12.6<br>13.1<br>14.1<br>D<br>U<br>14.1<br>A         | assessmen<br>Other adve<br>Waste Disp<br>LAND TRA<br>OT Proper S<br>OT Hazard C<br>N/NA Numbe<br>LAND TRA<br>DR/RID Ship | rse effects:<br>osal Method:<br>NSPORT (US I<br>hipping Name:<br>lass:<br>er:<br>NSPORT (Euro               | Section 13. Disposal Con<br>Dispose in accordance with local, state, ar<br>Section 14. Transport In<br>DOT):<br>Not dangerous goods. | nd federal re  | gulations.    |                 |               |  |  |
| 12.6<br>13.1<br>14.1<br>D<br>14.1<br>A<br>U         | assessmen<br>Other adve<br>Waste Disp<br>LAND TRA<br>OT Proper S<br>OT Hazard C<br>N/NA Numbe<br>LAND TRA                | rse effects:<br>osal Method:<br>NSPORT (US I<br>hipping Name:<br>lass:<br>er:<br>NSPORT (Euro<br>ping Name: | Section 13. Disposal Con<br>Dispose in accordance with local, state, an<br>Section 14. Transport In<br>DOT):<br>Not dangerous goods. | nd federal re  | gulations.    |                 |               |  |  |



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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     |  | S. 302 (EHS)  | S. 304 RQ         | S. 313 (TRI)   |  |  |
|-------------------------------|------------------------------------|--|---|-------------------|----------------|--|--|
| NA                            | BB-22 7-hydroxy                    | soquinoline isomer   | No  | No                | No             |  |  |
| CAS # Hazardous Com           |                                    | ponents (Chemical Name)  | Other US EPA or State Lists                                 |                   |                |  |  |
| NA                            | BB-22 7-hydroxyisoquinoline isomer |  | CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA<br>PROP.65: No |                   |                |  |  |
| Regulatory Ir<br>Statement:   | formation                          | This SDS was prepared in acc<br>No.1272/2008.  | ordance with 29 CFF   | 8 1910.1200 and R | egulation (EC) |  |  |
|                               |                                    | Section 16. Ot   | her Informatio  | on                |                |  |  |
| Revision Date:                |                                    | 06/24/2019   |   |                   |                |  |  |
| 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. |   |                   |                |  |  |