

SAFETY DATA SHEET

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| 6 | * | Uunonhyllonthin | | 1 490. 1 01 |
|-------|---|---|----------------------|--------------------------|
| ay | man | Hypophyllanthin | | Revision: 03/23/2015 |
| | acco | ording to Regulation (EC) No. 1907/2006 as amended by (| (EC) No. 1272/2008 | |
| | Section 1. I | dentification of the Substance/Mixture and of th | ne Company/Undert | aking |
| .1 | Product Code: | 11715 | | |
| | Product Name: | Hypophyllanthin | | |
| | Synonyms: | (7S,8S,9R)-9-(3,4-dimethoxyphenyl)-6,7,8,9-te | trahydro-4-methoxy-7 | ,8-bis(methoxymethyl)-na |
| | | tho[1,2-d]-1,3-dioxole; NSC 619044; | | |
| .2 | Relevant identified uses of | the substance or mixture and uses advised aga | ainst: | |
| | Relevant identified uses: | For research use only, not for human or veterir | nary use. | |
| .3 | Details of the Supplier of t | he Safety Data Sheet: | | |
| | Company Name: | Cayman Chemical Company | | |
| | | 1180 E. Ellsworth Rd. | | |
| | | Ann Arbor, MI 48108 | | |
| | Web site address: | www.caymanchem.com | | |
| | Information: | Cayman Chemical Company | +1 (734)971 | -3335 |
| .4 | Emergency telephone num | | | |
| | Emergency Contact: | CHEMTREC Within USA and Canada: | +1 (800)424 | |
| | | CHEMTREC Outside USA and Canada: | +1 (703)527 | -3887 |
| | | Section 2. Hazards Identification | ation | |
| 2.1 | Classification of the Subst | ance or Mixture: | | |
| 2.1.1 | Classification according t | o Regulation (EC) No 1272/2008 [CLP]: | | |
| | Acute Toxicity: Oral, Cat | egory 4 | | |
| 2.2 | Label Elements: | | | |
| 2.2.1 | Labeling according to Reg | gulation (EC) No 1272/2008 [CLP]: | | |
| | | | | |
| | $\langle \! \! \! \! \! \! \! \! \rangle$ | | | |
| | \mathbf{V} | | | |
| | GHS Signal Word: | Warning | | |
| | GHS Hazard Phrases: | | | |
| | H302: Harmful if swallowe | d. | | |
| | GHS Precaution Phrases | : | | |
| | P264: Wash {hands} thoro | ughly after handling. | | |
| | GHS Response Phrases | | | |
| | - | ED: Call a POISON CENTER or doctor/physician if | you feel unwell. | |
| | P330: Rinse mouth. | | , | |
| | GHS Storage and Dispos | al Phrases: | | |
| | | or Storage and Section 13 for Disposal information. | | |
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| 2.3 | | se Human Health s and Symptoms: | Harmful if swallowed. Material may be irritating to the mucous membranes and upper respiratory tract. May be harmful by inhalation or skin absorption. May cause eye, skin, or respiratory system irritation. To the best of our knowledge, the toxicological properties have not been thoroughly investigated. | | | | | |
|-----|--|--|---|--------------------|-------------------------|---------------------------------|--|--|
| | | Sec | tion 3. Composition | /Information | on Ingredie | ents | | |
| | CAS # / Hazardous Comp RTECS # REACH Registrat 33676-00-5 Hypophyllanthin QL0577000 | | oonents (Chemical Name)/ tion No. | Concentration | EC No./ EC Index No. | GHS Classification | | |
| | | | | 100.0 % | NA NA | Acute Tox.(O) 4: H302 | | |
| | | | Section 4. Fi | rst Aid Meas | sures | | | |
| 4.1 | Measu | ption of First Aid res: e of Inhalation: | No data available. Remove to fresh air. If not br Get immediate medical atten | | al respiration or gi | ve oxygen by trained personnel. | | |
| | | e of Skin Contact: e of Eye 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. Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined | | | | | |
| | In Cas | e of Ingestion: | and tested by medical personnel. 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 Me | easures | | | |
| 5.1 | Media: Unsuit | able Extinguishing | Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers. A solid water stream may be inefficient. | | | | | |
| 5.2 | Media: Flamm Hazaro Flash I | able Properties ar ds: | id No data available. No data. | | | | | |
| | Explos Autoig | sive Limits: Inition Pt: | LEL: No data. No data. | UEL: No c | | | | |
| 5.3 | .3 Fire Fighting Instructions: As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approv equivalent), and full protective gear to prevent contact with skin and eyes. | | | | | | | |
| | | | Section 6. Accider | | | | | |
| 6.1 | Protec | tive Precautions, tive Equipment an ency Procedures: | Avoid raising and breathing dust, and provide adequate ventilation. As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves). | | | | | |
| 6.2 | Enviro Precau | nmental utions: | Take steps to avoid release | into the environme | nt, if safe to do so. | | | |
| | | | Contain spill and collect, as appropriate. ${f g}$ Transfer to a chemical waste container for disposal in accordance with local regulations. | | | | | |
| | | | | | | Multi-region form | | |



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| 7.1 | Section 7. Handling and Storage Precautions To Be Taken Avoid breathing dust/fume/gas/mist/vapours/spray. | | | | | | | |
|---|---|---|--|---|---|--|----------------------------|--|
| | | Precautions To Be Taken Avoid breathing dust/fume/gas/mist/vapours/spray. in Handling: Avoid prolonged or repeated exposure. | | | | | | |
| 7.2 | | 0 | | | | | | |
| 7.2 Precautions To Be Taken Keep container tightly closed.in Storing: Store in accordance with information listed on the product insert. | | | | | | | | |
| | | Sectio | n 8. Expos | ure Cont | rols/Perso | nal Protection | | |
| 8.1 | Exposur | e Parameters: | | | | | | |
| CAS | # | Partial Chemical Na | ne | Britain El | H40 | France VL | Europe | |
| 33676-00-5 Hypophyllanthin | | | No data. | | No data. | No data. | | |
| | | Partial Chemical Na | me | OSHA TWA | VA | ACGIH TWA | Other Limits | |
| 336 | 76-00-5 | Hypophyllanthin | | No data. | | No data. | No data. | |
| 8.2 | | re Controls: | | | | | | |
| 8.2.1 | - | | e process enclos | ures, local ex | haust ventilation | , or other engineering c | controls to control airbor | |
| | - | | vels below recom | | | , <u> </u> | | |
| 8.2.2 | = | al protection equipm | | - | | | | |
| | | | fety glasses | | | | | |
| | Protecti | ive Gloves: Co | mpatible chemica | al-resistant glo | oves | | | |
| | Other Protective Clothing:Lab coat | | | | | | | |
| | Respiratory Equipment NIOSH approved respirator, as conditions warrant. | | | | | | | |
| | Respira | tory Equipment N | OSH approved re | espirator, as co | onditions warran | t. | | |
| | Respira (Specify | | OSH approved re | espirator, as co | onditions warran | t. | | |
| | (Specify | | | | onditions warran | ıt. | | |
| | (Specify | y Type): ygienic/Maintenan Do | o not take internal | lly. | | t. e equipped with an eye | wash and a safety show | |
| | (Specify Work/H | y Type): ygienic/Maintenan Do tices: Fa | o not take internal | lly. utilizing this m | | | wash and a safety show | |
| | (Specify Work/H | y Type): ygienic/Maintenan Do tices: Fa W | o not take internal cilities storing or | lly. utilizing this m | | | wash and a safety shov | |
| | (Specify Work/H | y Type): ygienic/Maintenan Do tices: Fa W | o not take internal cilities storing or ash thoroughly af data available. | lly. utilizing this m ter handling. | naterial should b | | wash and a safety show | |
| 9.1 | (Specify Work/H ce Prac | y Type): ygienic/Maintenan Do tices: Fa W | o not take internal cilities storing or ash thoroughly af data available. tion 9. Phy | lly. utilizing this m ter handling. vsical and | naterial should b | e equipped with an eye | wash and a safety shov | |
| 9.1 | (Specify Work/H ce Prac | y Type): ygienic/Maintenan Do tices: Fa W No Sec | o not take internal cilities storing or ash thoroughly af data available. tion 9. Phy I and Chemical | lly. utilizing this m ter handling. vsical and | naterial should b | e equipped with an eye | wash and a safety show | |
| 9.1 | (Specify Work/H ce Prac | y Type): ygienic/Maintenan Do tices: Fa W No Sec tion on Basic Physica | o not take internal cilities storing or ash thoroughly af data available. tion 9. Phy I and Chemical | lly. utilizing this m ter handling. /SiCal and Properties [] Liquid | naterial should b | e equipped with an eye | wash and a safety shov | |
| 9.1 | (Specify Work/H ce Prac | y Type): ygienic/Maintenan Do tices: Fa W No Sec tion on Basic Physica al States: ance and Odor: | o not take internal cilities storing or ash thoroughly af o data available. tion 9. Phy I and Chemical [] Gas | lly. utilizing this m ter handling. /SiCal and Properties [] Liquid | naterial should b | e equipped with an eye | wash and a safety shov | |
| 9.1 | (Specify Work/H ce Prac | y Type): ygienic/Maintenan Do tices: Fa W No Sec tion on Basic Physica al States: ance and Odor: Point: | o not take internal cilities storing or ash thoroughly af data available. tion 9. Phy I and Chemical [] Gas A crystalline | lly. utilizing this m ter handling. /SiCal and Properties [] Liquid | naterial should b | e equipped with an eye | wash and a safety shov | |
| 9.1 | (Specify Work/H ce Prac | y Type): ygienic/Maintenan Do tices: Fa W No Sec tion on Basic Physica al States: ance and Odor: Point: Point: | o not take internal cilities storing or ash thoroughly af o data available. tion 9. Phy I and Chemical [] Gas A crystalline No data. | lly. utilizing this m ter handling. /SiCal and Properties [] Liquid | naterial should b | e equipped with an eye | wash and a safety shov | |
| 9.1 | (Specify Work/H ce Prace Informate Physica Appeara Melting Boiling Flash P Evapora | y Type): ygienic/Maintenan Do tices: Fa W No Sec tion on Basic Physica al States: ance and Odor: Point: Point: t: ation Rate: | o not take internal cilities storing or ash thoroughly af o data available. tion 9. Phy I and Chemical [] Gas A crystalline No data. No data. | lly. utilizing this m ter handling. /SiCal and Properties [] Liquid | naterial should b | e equipped with an eye | wash and a safety shov | |
| 9.1 | (Specify Work/H ce Prace Informate Physica Appeara Melting Boiling Flash P Evapora Explosi | y Type): ygienic/Maintenan Do tices: Fa W No Sec tion on Basic Physica al States: ance and Odor: Point: Point: t: ation Rate: ve Limits: | o not take internal cilities storing or ash thoroughly af data available. tion 9. Phy I and Chemical [] Gas A crystalline No data. No data. No data. No data. LEL: No da | lly. utilizing this m ter handling. /SiCal and Properties [] Liquid e solid | naterial should b | e equipped with an eye | wash and a safety show | |
| 9.1 | (Specify Work/H ce Prace Informate Physica Appeara Melting Boiling Flash P Evapora Explosi Vapor P | y Type): ygienic/Maintenan Do tices: Fa W No Sec tion on Basic Physica al States: ance and Odor: Point: Point: t: ation Rate: | o not take internal cilities storing or ash thoroughly af data available. tion 9. Phy I and Chemical [] Gas A crystalline No data. No data. No data. No data. LEL: No da | lly. utilizing this m ter handling. /SiCal and Properties [] Liquid e solid | naterial should b | e equipped with an eye | wash and a safety shov | |
| 9.1 | (Specify Work/H ce Prace Informate Physica Appeara Melting Boiling Flash P Evapora Explosi Vapor P Hg): | y Type): ygienic/Maintenan Do tices: Fa W No Sec tion on Basic Physica al States: ance and Odor: Point: Point: t: ation Rate: ve Limits: Pressure (vs. Air or m | o not take internal cilities storing or ash thoroughly af o data available. tion 9. Phy I and Chemical [] Gas A crystalline No data. No data. No data. No data. LEL: No da m No data. | lly. utilizing this m ter handling. /SiCal and Properties [] Liquid e solid | naterial should b | e equipped with an eye | wash and a safety show | |
| 9.1 | (Specify Work/H ce Prace Informate Physica Appeara Melting Boiling Flash P Evapora Explosi Vapor P Hg): Vapor D | y Type): ygienic/Maintenan Do tices: Fa W No Sec tion on Basic Physica al States: ance and Odor: Point: Point: t: ation Rate: ve Limits: Pressure (vs. Air or m Density (vs. Air = 1): | o not take internal cilities storing or ash thoroughly af o data available. tion 9. Phy I and Chemical [] Gas A crystalline No data. No data. No data. LEL: No da m No data. No data. | lly. utilizing this m ter handling. /SiCal and Properties [] Liquid e solid | naterial should b | e equipped with an eye | wash and a safety shov | |
| 9.1 | (Specify Work/H ce Prace Informat Physica Appears Melting Boiling Flash P Evapora Explosi Vapor P Hg): Vapor D Specific | y Type): ygienic/Maintenan Do tices: Fa W No Sec tion on Basic Physica al States: ance and Odor: Point: Point: t: ation Rate: ve Limits: Pressure (vs. Air or m Density (vs. Air = 1): c Gravity (Water = 1): | o not take internal cilities storing or ash thoroughly af o data available. tion 9. Phy I and Chemical [] Gas A crystalline No data. No data. No data. LEL: No da m No data. No data. No data. | lly. utilizing this m ter handling. /SiCal and Properties [] Liquid e solid | naterial should b | e equipped with an eye | wash and a safety show | |
| 9.1 | (Specify Work/H ce Prace Informate Physica Appeara Melting Boiling Flash P Evapora Explosi Vapor P Hg): Vapor D Specific Solubili | y Type): ygienic/Maintenan Do tices: Fa W No Sec tion on Basic Physica al States: ance and Odor: Point: Point: t: ation Rate: ve Limits: Pressure (vs. Air or m Density (vs. Air = 1): c Gravity (Water = 1): ty in Water: | o not take internal cilities storing or ash thoroughly af o data available. tion 9. Phy I and Chemical [] Gas A crystalline No data. No data. No data. LEL: No da m No data. No data. No data. No data. No data. No data. No data. | lly. utilizing this m ter handling. /Sical and Properties [] Liquid e solid ta. | naterial should b d Chemical [X] Solid UEL | e equipped with an eye Properties : No data. | wash and a safety shov | |
| 9.1 | (Specify Work/H ce Prace Informat Physica Appeara Melting Boiling Flash P Evapora Explosi Vapor P Hg): Vapor D Specific Solubili Solubili | y Type): ygienic/Maintenan Do tices: Fa W No Sec tion on Basic Physica al States: ance and Odor: Point: Point: t: ation Rate: ve Limits: Pressure (vs. Air or m Density (vs. Air = 1): c Gravity (Water = 1): | o not take internal cilities storing or ash thoroughly af o data available. tion 9. Phy I and Chemical [] Gas A crystalline No data. No data. No data. LEL: No da m No data. No data. No data. No data. No data. No data. No data. | lly. utilizing this m ter handling. /Sical and Properties [] Liquid e solid ta. | naterial should b | e equipped with an eye Properties : No data. | wash and a safety show | |



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| 9.2 | Other Info | ormation | | | | | | | |
|------|--|-------------------|--|----------------|----------------|-----------------|--------------|--|--|
| | Percent | Volatile: | No data. | | | | | | |
| | Molecula | ar Formula & Weig | ght: C24H30O7 430.5 | | | | | | |
| | | | Section 10. Stability and | Reactiv | ⁄ity | | | | |
| 10.1 | Reactivit | iy: | No data available. | | | | | | |
| 10.2 | - | | | | | | | | |
| 10.3 | Stability | Note(s): | Stable if stored in accordance with inform | ation listed o | n the product | insert. | | | |
| | Polymerization: Will occur [] Will not occur [X] | | | | | | | | |
| 10.4 | | | | | | | | | |
| 10.5 | | | | | | | | | |
| | To Avoid | 1: | | | | | | | |
| 10.6 | Hazardo | us | No data available. | | | | | | |
| | Decomp | osition Or | | | | | | | |
| | Byprodu | cts: | | | | | | | |
| | | | Section 11. Toxicological | Informa | tion | | | | |
| 11.1 | Informat | ion on | The toxicological effects of this product ha | ave not been | thoroughly st | udied. | | | |
| | Toxicolo | gical Effects: | Hypophyllanthin - Toxicity Data: Intraperit | oneal TDLO | (rat): 10 mg/k | g; | | | |
| | Chronic | Toxicological | Hypophyllanthin - Investigated as a natura | al product. | | | | | |
| | Effects: | | Only select Registry of Toxic Effects of Ch | nemical Subs | stances (RTE | CS) data is pre | sented here. | | |
| | | | See actual entry in RTECS for complete in | nformation. | | | | | |
| | | | Hypophyllanthin RTECS Number: QL057 | 7000 | | | | | |
| CAS | # | Hazardous Com | ponents (Chemical Name) | NTP | IARC | ACGIH | OSHA | | |
| 336 | 76-00-5 | Hypophyllanthin | | n.a. | n.a. | n.a. | n.a. | | |
| | | • | Section 12. Ecological I | nformati | on | • | · | | |
| 12.1 | Toxicity: | | Avoid release into the environment. | | | | | | |
| | | | Runoff from fire control or dilution water m | nay cause po | llution. | | | | |
| 12.2 | Persiste | nce and | No data available. | | | | | | |
| | Degrada | bility: | | | | | | | |
| 12.3 | Bioaccu | | No data available. | | | | | | |
| | Potentia | I: | | | | | | | |
| 12.4 | Mobility | in Soil: | No data available. | | | | | | |
| 12.5 | - | | 3 No data available. | | | | | | |
| | assessm | ient: | | | | | | | |
| 12.6 | | | | | | | | | |
| | | | Section 13. Disposal Cor | nsiderati | ons | | | | |
| 13.1 | · | | | | | | | | |
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Cayman

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| Section 14. Transport Information | | | | | | | | |
|-----------------------------------|------------------------------|--|--|--|--|--|--|--|
| 14.1 LAND TRANSPORT (US DOT): | | | | | | | | |
| DOT Prope DOT Hazar | r Shipping Name: d Class: | Not dangerous goods. | | | | | | |
| UN/NA Nun | UN/NA Number: | | | | | | | |
| 14.1 LAND T | RANSPORT (Euro | opean ADR/RID): | | | | | | |
| | hipping Name: | Not dangerous goods. | | | | | | |
| UN Number Hazard Clas | - | | | | | | | |
| | SS: ANSPORT (ICAO/I | IATA)- | | | | | | |
| | Shipping Name: | Not dangerous goods. | | | | | | |
| Additional Trar | | Transport in accordance with loc | cal, state, and federal | regulations. | | | | |
| Information: | - | | | - | | | | |
| | | Section 15. Regula | atory Informat | ion | | | | |
| · · · · · | - | nents and Reauthorization Act o | - | | | | | |
| CAS # | | ponents (Chemical Name) | S. 302 (EHS) | S. 304 RQ | S. 313 (TRI) | | | |
| 33676-00-5 | Hypophyllanthin | | No | No | No | | | |
| CAS # | | ponents (Chemical Name) | Other US EPA or State Lists | | | | | |
| 33676-00-5 Hypophyllanthin | | | PROP.65: No | o; CWA NPDES: No; | ISCA: No; CA | | | |
| Regulatory Info Statement: | ormation | This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC) No.1272/2008. | | | | | | |
| | | Section 16. Oth | er Informatior | ۱ | | | | |
| Revision Date: | | 03/23/2015 | | | | | | |
| Additional Infor This Product: | mation About | No data available. | | | | | | |
| Company Policy or Disclaimer: | | DISCLAIMER: This information is currently available to us. However express or implied, with respect use. Users should make their ow their particular purposes. | er, we make no warra to such information, a | nty of merchantability and we assume no lia | y or any other warranty, bility resulting from its | | | |
| | | | | | Multi-region format | | | |