

SAFETY DATA SHEET 20-hydroxy Prostaglandin F2.alpha. Lipid Maps MS Standard

Revision: 04/26/2015

| | ording to Regulation (EC) No. 1907/2006 as amended by (dentification of the Substance/Mixture and of th | EC) No. 1272/2008 |
|---|--|--|
| ct Code: ct Name: | dentification of the Substance/Mixture and of th | |
| ct Name: | | e Company/Undertaking |
| | 10007229 | |
| /ms: | 20-hydroxy Prostaglandin F2.alpha. Lipid Maps | MS Standard |
| | 9.alpha.,11.alpha.,15S,20-tetrahydroxy-prosta- | |
| nt identified uses of | the substance or mixture and uses advised aga | |
| ant identified uses: | - | |
| of the Supplier of t | - | |
| | | |
| pany Name: | Cayman Chemical Company | |
| | 1180 E. Ellsworth Rd. | |
| | Ann Arbor, MI 48108 | |
| site address: | www.caymanchem.com | |
| mation: | Cayman Chemical Company | +1 (734)971-3335 |
| ency telephone num | ıber: | |
| gency Contact: | CHEMTREC Within USA and Canada: | +1 (800)424-9300 |
| | CHEMTREC Outside USA and Canada: | +1 (703)527-3887 |
| | Section 2. Hazards Identifica | ation |
| ication of the Subst | ance or Mixture: | |
| fication according t | o Regulation (EC) No 1272/2008 [CLP]: | |
| - | | |
| - | | |
| | | |
| | vieny (single exposure), ouregory o | |
| | nulation (FC) No 1272/2008 [CLP] | |
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| ッンく!ン | | |
| | | |
| | | |
| Signal Word: | Danger | |
| Signal Word: Hazard Phrases: | Danger | |
| Hazard Phrases: | Danger ure may cause skin dryness or cracking. | |
| Hazard Phrases: | ure may cause skin dryness or cracking. | |
| Hazard Phrases: 066: Repeated expos | ure may cause skin dryness or cracking. quid and vapor. | |
| Hazard Phrases: 066: Repeated expos : Highly flammable lice | ure may cause skin dryness or cracking. quid and vapor. e irritation. | |
| Hazard Phrases: 066: Repeated expos 5: Highly flammable lic 9: Causes serious eye | ure may cause skin dryness or cracking. quid and vapor. e irritation. ess or dizziness. | |
| Hazard Phrases: 066: Repeated expos : Highly flammable lic : Causes serious eye : May cause drowsing Precaution Phrases | ure may cause skin dryness or cracking. quid and vapor. e irritation. ess or dizziness. | |
| Hazard Phrases: 066: Repeated expos : Highly flammable lic : Causes serious eye : May cause drowsin Precaution Phrases : Keep away from {he | ure may cause skin dryness or cracking. quid and vapor. e irritation. ess or dizziness. | |
| Hazard Phrases: 066: Repeated expos : Highly flammable lic : Causes serious eye : May cause drowsin Precaution Phrases : Keep away from {he | ure may cause skin dryness or cracking. quid and vapor. e irritation. ess or dizziness. s: eat/sparks/open flames/hot surfaces} No smoking. st/fume/gas/mist/vapors/spray}. | |
| Hazard Phrases: 066: Repeated expos : Highly flammable lic : Causes serious eye : May cause drowsin Precaution Phrases : Keep away from {he : Avoid breathing {du : Wash {hands} thoro | ure may cause skin dryness or cracking. quid and vapor. e irritation. ess or dizziness. s: eat/sparks/open flames/hot surfaces} No smoking. st/fume/gas/mist/vapors/spray}. | |
| Hazard Phrases: 066: Repeated expos 2: Highly flammable lid 2: Causes serious eye 3: May cause drowsing Precaution Phrases 2: Keep away from {he 2: Avoid breathing {du 4: Wash {hands} thoro 2: Wear {protective glo | ure may cause skin dryness or cracking. quid and vapor. e irritation. ess or dizziness. : eat/sparks/open flames/hot surfaces} No smoking. st/fume/gas/mist/vapors/spray}. oughly after handling. | |
| Hazard Phrases: 066: Repeated expos : Highly flammable lid : Causes serious eye : May cause drowsing Precaution Phrases : Keep away from {he : Avoid breathing {du : Wash {hands} thoro : Wear {protective glo Response Phrases: | ure may cause skin dryness or cracking. quid and vapor. e irritation. ess or dizziness. :: eat/sparks/open flames/hot surfaces} No smoking. st/fume/gas/mist/vapors/spray}. oughly after handling. oves/protective clothing/eye protection/face protection | on}. |
| Hazard Phrases: 066: Repeated expos 2: Highly flammable lid 2: Causes serious eye 3: May cause drowsing Precaution Phrases 2: Keep away from {he 2: Avoid breathing {du 3: Wash {hands} thoro 3: Wear {protective glo Response Phrases 3: +361+353: IF ON SK | ure may cause skin dryness or cracking. quid and vapor. e irritation. ess or dizziness. : eat/sparks/open flames/hot surfaces} No smoking. st/fume/gas/mist/vapors/spray}. oughly after handling. | on}. |
| Hazard Phrases: 066: Repeated expos 5: Highly flammable lid 6: Causes serious eye 7: May cause drowsine Precaution Phrases 7: Keep away from {he 7: Avoid breathing {du 7: Wash {hands} thoro 7: Wear {protective glo 7: Wear {protective glo 8: Add the series 8: Add the series 9: Add t | ure may cause skin dryness or cracking. quid and vapor. e irritation. ess or dizziness. eat/sparks/open flames/hot surfaces} No smoking. st/fume/gas/mist/vapors/spray}. hughly after handling. oves/protective clothing/eye protection/face protection face protection i: IN (or hair): Remove/take off immediately all contant | on}. ninated clothing. Rinse skin with |
| Hazard Phrases: 066: Repeated expos : Highly flammable lid : Causes serious eye : May cause drowsing Precaution Phrases : Keep away from {he : Keep away from {he : Avoid breathing {du : Wash {hands} thoro : Wear {protective glo Response Phrases: +361+353: IF ON SK r/shower. +340: IF INHALED: F | ure may cause skin dryness or cracking. quid and vapor. e irritation. ess or dizziness. :: eat/sparks/open flames/hot surfaces} No smoking. st/fume/gas/mist/vapors/spray}. oughly after handling. oves/protective clothing/eye protection/face protection | on}. ninated clothing. Rinse skin with tion comfortable for breathing. |
| | bany Name: site address: nation: ency telephone num gency Contact: fication of the Subst fication according to mable Liquids, Cate ous Eye Damage/Eye ific Target Organ To Elements: | 1180 E. Ellsworth Rd. Ann Arbor, MI 48108 site address: www.caymanchem.com mation: Cayman Chemical Company ency telephone number: CHEMTREC Within USA and Canada: gency Contact: CHEMTREC Outside USA and Canada: CHEMTREC Outside USA and Canada: Section 2. Hazards Identification ication of the Substance or Mixture: fication according to Regulation (EC) No 1272/2008 [CLP]: mable Liquids, Category 2 pus Eye Damage/Eye Irritation, Category 2 ific Target Organ Toxicity (single exposure), Category 3 |



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P312: Call a POISON CENTER or doctor/physician if you feel unwell.

P337+313: If eye irritation persists, get medical advice/attention.

GHS Storage and Disposal Phrases:

Please refer to Section 7 for Storage and Section 13 for Disposal information.

2.3 Adverse Human Health Causes serious eye irritation.

Effects and Symptoms: Material may be irritating to the mucous membranes and upper respiratory tract.

May be harmful by inhalation, ingestion, or skin absorption.

May cause drowsiness or dizziness.

May cause skin or respiratory system irritation.

Repeated exposure may cause skin dryness or cracking.

To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

Section 3. Composition/Information on Ingredients

| CAS # / RTECS # | Hazardous Components (Chemical Name)/ REACH Registration No. | Concentration | EC No./ EC Index No. | GHS Classification |
|----------------------|---|---------------|---------------------------|--|
| 57930-92-4 NA | 20-hydroxy Prostaglandin F2.alpha. | 0.05 % | NA NA | Acute Tox.(O) 4: H302 Toxic Repro. 1B: H360 |
| 79-20-9 Al9100000 | Methyl acetate | 99.95 % | 201-185-2 607-021-00-X | Flam. Liq. 2: H225 Eye Damage 2: H319 STOT (SE) 3: H335 H336 |

Section 4. First Aid Measures

4.1 Description of First Aid No data available.

| In Case of Inhalation: | Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. |
|--------------------------|---|
| | 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.

4.2 Important Symptoms and Exposure may cause: coughing, dizziness, drowsiness, headache, narcosis, optic nerve atrophy,Effects, Both Acute and chest tightness.

Delayed:

Measures:

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 A solid water stream may be inefficient.
 Media:
 5.2 Flammable Properties and Can release vapors that form explosive mixtures at temperatures at or above the flash point.
 Hazards: Container explosion may occur under fire conditions.
 Emits toxic fumes under fire conditions.
 Sensitive to static discharge.
 Vapors can travel to a source of ignition and flash back.

Flash Pt: -10.00 C Method Used: Closed Cup

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|------------|--------------|---------------------|---|----------------------------------|---|----------------------|
| 6 | J | | 20-hydroxy Pr | ostaglandin F2.alph | a. Lipid Maps | evision: 04/26/2015 |
| Cay | man | | | MS Standard | i te | VISION. 04/20/2013 |
| | Explos | ve Limits: | LEL: 3.1% at | 25.0 C UEL: 16.0% | at 25.0 C | |
| | Autoig | nition Pt: | 455.00 C | | | |
| 5.3 | Fire Fig | hting Instructions | As in any fire, wear s | elf-contained breathing appar | atus pressure-demand (NIOS | 3H approved or |
| | | | • • • | protective gear to prevent cont | act with skin and eyes. | |
| | | | Note: Flammable as | diluted in methyl acetate. | | |
| | | | Section 6. Ac | cidental Release M | easures | |
| 6.1 | Protect | ive Precautions, | Avoid breathing vapo | ors and provide adequate ven | tilation. | |
| | Protect | ive Equipment and | d As conditions warrar | nt, wear a NIOSH approved se | elf-contained breathing appar | atus, or respirator, |
| | Emerge | ency Procedures: | and appropriate pers | sonal protection (rubber boots | , safety goggles, and heavy r | ubber gloves). |
| 6.2 | Enviror | nmental | Take steps to avoid | release into the environment, | if safe to do so. | |
| | Precau | tions: | | | | |
| 6.3 | | | r Contain spill and coll | | | |
| | | ment and Cleanin | ig I ransfer to a chemic | al waste container for disposa | al in accordance with local reg | julations. |
| | Up: | | | | | |
| | | | Section 7. | Handling and Sto | rage | |
| 7.1 | Precau | tions To Be Taken | Avoid breathing dust/ | fume/gas/mist/vapours/spray. | | |
| | in Hanc | lling: | Avoid prolonged or re | | | |
| | | | Keep away from sour | - | | |
| | _ | | | neasures against static discha | irge. | |
| 7.2 | | | Keep away from heat Keep container tightly | | | |
| | in Stori | ng. | | with information listed on the p | product insert. | |
| | Other F | Precautions: | Protect from moisture | | | |
| — | | Soci | tion 9 Exposu | ura Controla/Dorgon | al Drotaction | |
| | | re Parameters: | | ire Controls/Person | | |
| 8.1 CAS | • | Partial Chemical | Namo | Britain EH40 | France VL | Europe |
| | # 30-92-4 | | aglandin F2.alpha. | No data. | No data. | No data. |
| | | | agiandin F2.aipha. | TWA: 616 mg/m3 (200 ppm) | | |
| /9 |)-20-9 | Methyl acetate | | STEL: 770 mg/m3 (250 ppm) | TWA: 610 mg/m3 (200 ppm) STEL: 760 mg/m3 (250 ppm) | No data. |
| CAS | # | Partial Chemical | Name | OSHA TWA | ACGIH TWA | Other Limits |
| 5793 | 30-92-4 | 20-hydroxy Prosta | aglandin F2.alpha. | No data. | No data. | No data. |
| 79 | -20-9 | Methyl acetate | <u> </u> | PEL: 200 ppm | TLV: 200 ppm | No data. |
| | | | | | STEL: 250 ppm | |
| 8.2 | Exposu | re Controls: | | | | |
| 8.2.1 | - | ering Controls | - | res, local exhaust ventilation, | or other engineering controls | to control airborne |
| | • | tion etc.): | | ended exposure limits. | | |
| 8.2.2 | | al protection equi | • | | | |
| | - | otection: | Safety glasses | | | |
| | | ive Gloves: | Compatible chemical | -resistant gloves | | |
| | | Protective Clothing | - | | | |
| | - | atory Equipment | NIOSH approved res | pirator, as conditions warrant. | | |
| | | у Туре): | De met teles 1 (| | | |
| | | | Do not take internally | tilizing this material should be | equipped with an avouach a | nd a safaty above |
| | ce Prac | | Wash thoroughly after | | equipped with an eyewash a | |
| | | | and anotoughly uno | | | M |
| | | | | | | Multi-region forma |



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Section 9. Physical and Chemical Properties

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|------|---------------------------|---|
| 9.1 | Information on Basic Phy | vsical and Chemical Properties |
| | Physical States: | []Gas [X]Liquid []Solid |
| | Appearance and Odor: | A solution in methyl acetate |
| | Melting Point: | No data. |
| | Boiling Point: | No data. |
| | Flash Pt: | -10.00 C Method Used: Closed Cup |
| | Evaporation Rate: | No data. |
| | Explosive Limits: | LEL: 3.1% at 25.0 C UEL: 16.0% at 25.0 C |
| | Vapor Pressure (vs. Air o | or mm 173 MM_HG at 20.0 C |
| | Hg): | |
| | Vapor Density (vs. Air = | 1): No data. |
| | Specific Gravity (Water = | = 1): No data. |
| | Solubility in Water: | No data. |
| | Autoignition Pt: | 455.00 C |
| 9.2 | Other Information | |
| | Percent Volatile: | No data. |
| | Molecular Formula & We | eight: C20H34O6 370.5 |
| | | 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: | heat, flames and sparks |
| 10.5 | Incompatibility - Materia | |
| | To Avoid: | alkalis |
| | | nitrates |
| | | strong oxidizing agents |
| 10.6 | Hazardous | carbon dioxide |
| | Decomposition Or | carbon monoxide |
| | Byproducts: | |
| | | |
| | | |
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| | | |
| | | |

No data available.



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|---|---------------------|--------------------------|---|---|---------------|--------------|----------------------|-----------------|
| | | | Sectio | n 11. Toxicologica | l Informa | ation | | |
| 1.1 Information on Toxicological Effects: Chronic Toxicological Effects: | | | The toxicological effects of this product have not been thoroughly studied. Methyl Acetate - Toxicity Data: Oral LD50 (rat): >5,000 mg/kg; Oral LD50 (rabbit): 3,705 mg/kg; Skin LD50 (rabbit): >5,000 mg/kg; Inhalation TCLO (human): 15,000 mg/m3; Methyl Acetate - Irritation Data: Skin (rabbit): 500 mg (24h) mild; Eyes (rabbit): 100 mg (24h) moderate; Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here. See actual entry in RTECS for complete information. | | | | | |
| arci | nogenicity | <i>.</i> | Methyl Aceta NTP? No | ate RTECS Number: Al9100 IARC Monographs? No | | egulated? No | | |
| CAS | | Hazardous Com | | <u> </u> | NTP | IARC | ACGIH | OSHA |
| | 30-92-4 | 20-hydroxy Prost | | - | n.a. | n.a. | n.a. | n.a. |
| 79 | -20-9 | Methyl acetate | <u> </u> | · | n.a. | n.a. | n.a. | n.a. |
| | | Į | Secti | on 12. Ecological | Informat | ion | ! | |
| 2.1 | Toxicity: | | | e into the environment. fire control or dilution water | may cause p | ollution. | | |
| 2.2 | Persiste Degrada | | No data avai | ilable. | | | | |
| 2.3 | Bioaccu Potentia | | No data avai | ilable. | | | | |
| 2.4 | Mobility | in Soil: | No data avai | ilable. | | | | |
| 2.5 | Results of assessm | of PBT and vPvB nent: | No data ava | ilable. | | | | |
| 2.6 | Other ad | verse effects: | No data ava | ilable. | | | | |
| | | | Sectio | n 13. Disposal Co | nsiderat | ions | | |
| 3.1 | Waste D | isposal Method: | Dispose in a | ccordance with local, state, | and federal r | egulations. | | |
| | | | Sect | tion 14. Transport | Informat | tion | | |
| 14.1 | LAND T | RANSPORT (US I | DOT): | | | | | |
| D | OT Prope | r Shipping Name: | : Methyl A | Acetate Solution | | | | |
| D | OT Hazaro | d Class: | 3 | FLAMMABLE LIQU | ID | | | |
| U | N/NA Num | nber: | 1231 | Р | acking Grou | ıp: | II | |
| | | | FLOMMOBLE L | ICUID | | | | |
| 14.1 | LAND T | RANSPORT (Euro | - | - | | | | |
| | | hipping Name: | | Acetate Solution | | | | |
| - | N Number | | 1231 | | acking Grou | ıp: | II | |
| Н | azard Clas | SS: | 3 - FLAN | MMABLE LIQUID | | | | |
| | | | | | | | | |
| | | | | | | | _ | |

Multi-region format



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| 14.3 | AIR TRANSPORT (ICAO/IATA): |
|------|----------------------------|
|------|----------------------------|

| ICAO/IATA Shipping Name: | Methyl Acetate Solution | | |
|--------------------------|--------------------------------------|--------------------------------------|-----------------------------|
| UN Number: | 1231 | Packing Group: | II |
| Hazard Class: | 3 - FLAMMABLE LIQUID | IATA Classification: | 3 |
| Additional Transport | Transport in accordance with loca | l, state, and federal regulations. | |
| Information: | When sold in quantities of less that | an or equal to 1 mL, or 1 g, with ar | n Excepted Quantity Code of |
| | E1, E2, E4, or E5, this item meets | the De Minimis Quantities exemp | tion, per IATA 2.6.10. |
| | Therefore packaging does not have | ve to be labeled as Dangerous Go | ods/Excepted Quantity. |

Section 15. Regulatory Information

| 0-hydroxy Prosta lethyl acetate l azardous Com | ponents (Chemical Name) aglandin F2.alpha. ponents (Chemical Name) aglandin F2.alpha. This SDS was prepared in acc No.1272/2008. Section 16. Of | PROP.65: No CAA HAP,ODC: Inventory, 4 Test cordance with 29 CFF | No; CWA NPDES: No; CWA NPDES: t, 8A PAIR; CA PR | OP.65: No |
|---|---|--|--|---|
| Iethyl acetate Iazardous Com 0-hydroxy Prosta Iethyl acetate | ponents (Chemical Name) aglandin F2.alpha. This SDS was prepared in acc No.1272/2008. | No Other US EPA o CAA HAP,ODC: PROP.65: No CAA HAP,ODC: Inventory, 4 Test cordance with 29 CFF | No r State Lists No; CWA NPDES: No; CWA NPDES: t, 8A PAIR; CA PR | No No; TSCA: No; CA No; TSCA: Yes - OP.65: No |
| lazardous Com 0-hydroxy Prosta 1ethyl acetate | aglandin F2.alpha. This SDS was prepared in acc No.1272/2008. | Other US EPA o CAA HAP,ODC: PROP.65: No CAA HAP,ODC: Inventory, 4 Test cordance with 29 CFF | r State Lists No; CWA NPDES: No; CWA NPDES: t, 8A PAIR; CA PR | No; TSCA: No; CA No; TSCA: Yes - OP.65: No |
| 0-hydroxy Prost 1ethyl acetate | aglandin F2.alpha. This SDS was prepared in acc No.1272/2008. | CAA HAP,ODC: PROP.65: No CAA HAP,ODC: Inventory, 4 Test cordance with 29 CFF | No; CWA NPDES: No; CWA NPDES: t, 8A PAIR; CA PR | No; TSCA: Yes - OP.65: No |
| lethyl acetate | This SDS was prepared in acc No.1272/2008. | PROP.65: No CAA HAP,ODC: Inventory, 4 Test cordance with 29 CFF | No; CWA NPDES: t, 8A PAIR; CA PR | No; TSCA: Yes - OP.65: No |
| | No.1272/2008. | Inventory, 4 Test | , 8A PAIR; CA PR | OP.65: No |
| nation | No.1272/2008. | | R 1910.1200 and R | egulation (EC) |
| | Section 16. Of | the sur lister was esti- | | |
| | | ther information | on | |
| | 04/26/2015 | | | |
| ation About | No data available. | | | |
| or Disclaimer: | currently available to us. Howe express or implied, with respe | ever, we make no wa ct to such informatior | rranty of merchanta | ability or any other warrant no liability resulting from its |
| | | r Disclaimer: DISCLAIMER: This informatio currently available to us. How express or implied, with respe use. Users should make their | r Disclaimer: DISCLAIMER: This information is believed to be ac currently available to us. However, we make no wa express or implied, with respect to such information use. Users should make their own investigations to | r Disclaimer: DISCLAIMER: This information is believed to be accurate and represe currently available to us. However, we make no warranty of merchanta express or implied, with respect to such information, and we assume r use. Users should make their own investigations to determine the suit |