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Safety Data Sheet acc. to OSHA HCS

Printing date 07/13/2023

Revision date 07/13/2023

1 Identification

- · Product identifier
- · Trade name: 15-deoxy-Δ12,14-Prostaglandin J2
- · Article number: 18570.1
- · Application of the substance / the mixture

This product is for research use - Not for human or veterinary diagnostic or therapeutic use.

- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier: Cayman Chemical Co.

1180 E. Ellsworth Rd. Ann Arbor, MI 48108

USA

- · Information department: Product safety department
- · Emergency telephone number:

During normal opening times: +1 (734) 971-3335

US/CANADA: 800-424-9300

Outside US/CANADA: 703-741-5970

2 Hazard(s) identification

· Classification of the substance or mixture



GHS02 Flame

Flammable Liquids 2 H225 Highly flammable liquid and vapor.



GHS07

Eye Irritation 2A

H319 Causes serious eye irritation.

Specific Target Organ Toxicity - Single Exposure 3 H336 May cause drowsiness or dizziness.

- · Label elements
- · GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

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Trade name: 15-deoxy-Δ12,14-Prostaglandin J2

Hazard pictograms





GHS02 GHS07

· Signal word Danger

· Hazard-determining components of labeling:

Methyl acetate

· Hazard statements

H225 Highly flammable liquid and vapor.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

· Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P264 Wash thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with

water/shower.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P312 Call a poison center/doctor if you feel unwell.

P337+P313 If eye irritation persists: Get medical advice/attention.

P370+P378 In case of fire: Use CO2, powder or water spray to extinguish. P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

· Classification system:

· NFPA ratings (scale 0 - 4)



Health = 2 Fire = 3 Reactivity = 0

HMIS-ratings (scale 0 - 4)



Health = 2 Fire = 3

Reactivity = 0

· Other hazards

- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.

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· **vPvB:** Not applicable.

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3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous co	mponents:	
CAS: 79-20-9 RTECS: AI910	Methyl acetate	99.0%
· Other ingredie	****	
87893-55-8 15	5-deoxy-Δ12,14-Prostaglandin J2	1.0%

4 First-aid measures

- Description of first aid measures
- · General information: Immediately remove any clothing soiled by the product.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Immediately rinse with water.
- · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- · After swallowing: If symptoms persist consult doctor.
- Information for doctor:
- · Most important symptoms and effects, both acute and delayed

No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- Suitable extinguishing agents:

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- For safety reasons unsuitable extinguishing agents: Water with full jet
- · Special hazards arising from the substance or mixture

Can release vapors that form explosive mixtures at temperatures at or above the flashpoint.

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.

- Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

- · Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

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Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

Protective Action Criteria for Chemicals

· PAC-1:	
79-20-9 Methyl acetate	250 ppm
· PAC-2:	
79-20-9 Methyl acetate	1,700 ppm
· PAC-3:	
79-20-9 Methyl acetate	10000* ppm

7 Handling and storage

- · Handling:
- Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- · Conditions for safe storage, including any incompatibilities
- · Storage: Store in accordance with information listed on the product insert.
- · Requirements to be met by storerooms and receptacles: Store in a cool location.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions:

Keep receptacle tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see section 7.
- · Control parameters

· Components with limit values that require monitoring at the workplace:	
79-2	0-9 Methyl acetate
PEL	Long-term value: 610 mg/m³, 200 ppm
REL	Short-term value: 760 mg/m³, 250 ppm Long-term value: 610 mg/m³, 200 ppm
TLV	Short-term value: 250 ppm Long-term value: 200 ppm

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

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Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

- Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Liquid

Color: According to product specification

Odor: Characteristic
 Structural Formula C20H28O3
 Molecular Weight 316.4 g/mol
 Odor threshold: Not determined.

• Formulation A solution in methyl acetate

· **pH-value:** Not determined.

· Change in condition

Melting point/Melting range:-98 °C (-144.4 °F)Boiling point/Boiling range:57 °C (134.6 °F)

· Flash point: -13 °C (8.6 °F)

· Flammability (solid, gaseous): Highly flammable.

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· Auto igniting:	454 °C (849.2 °F)
· Decomposition temperature:	Not determined.
· Ignition temperature:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air vapor mixtures are possible.
· Explosion limits: Lower: Upper:	3.1 Vol % 16 Vol %
· Vapor pressure at 20 °C (68 °F): · Vapor pressure at 50 °C (122 °F):	220 hPa (165 mm Hg) 800 hPa (600 mm Hg)
· Density at 20 °C (68 °F):	0.93 g/cm³ (7.76085 lbs/gal)
 Bulk density: Relative density Vapor density Evaporation rate 	1 kg/m³ Not determined. Not determined. Not determined.
· Solubility in / Miscibility with Water at 20 °C (68 °F):	330 g/l
· Partition coefficient (n-octanol/wate	r): Not determined.
· Viscosity: Dynamic: Kinematic: SOLUBILITY	Not determined. Not determined. DMF: >100 mg/ml; DMSO: >20 mg/ml; Ethanol: >75 mg/m PBS pH 7.2: >2.7 mg/ml
Solvent content: Organic solvents: VOC content:	99.0 % 0.00 % 0.0 g/l / 0.00 lb/gal
Solids content:	1.0 %
· Other information	No further relevant information available.

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

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11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:

LD/LC50 values that are relevant for classification:

79-20-9 Methyl acetate

Oral LD50 6,482 mg/kg (rat)
Inhalative LC50/4 h >49.2 mg/l (rabbit)

- · Primary irritant effect:
- on the skin: No irritant effect.
- · on the eye: Irritating effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

İrritant

· Carcinogenic categories

IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- Additional ecological information:
- · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · **vPvB:** Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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· Uncleaned packagings: · Recommendation: Disposal must be made according to official regulations.

UN-Number	
DOT, IMDG, IATA	UN1231
UN proper shipping name	
DOT, IATA	Methyl acetate solution
IMDG	METHYL ACETATE solution
Transport hazard class(es)	
DOT	
FLAMMARE LIQUO	
Class	3 Flammable liquids
Label	3
IMDG, IATA	
Class	3 Flammable liquids
Label	3
Packing group	
DOT, IMDG, IATA	II
Environmental hazards:	Not applicable.
Special precautions for user	Warning: Flammable liquids
Hazard identification number (Kemler code):	
EMS Number: Stowage Category	F-E,S-D B
	<u>ل</u>
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
Transport/Additional information:	
DOT	
Quantity limitations	On passenger aircraft/rail: 5 L On cargo aircraft only: 60 L
IMDG	
Limited quantities (LQ)	1L
Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml

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· IATA · Remarks: When sold in quantities of less than or equal to 1 mL, or 1 g, with an Excepted Quantity Code of E1, E2, E4, or E5, this item meets the De Minimis Quantities exemption, per IATA 2.6.10. Therefore packaging does not have to be labeled as Dangerous Goods/Excepted Quantity.

UN 1231 METHYL ACETATE SOLUTION, 3, II

15 Regulatory information

· UN "Model Regulation":

- · Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.
- · Sara
- · Section 355 (extremely hazardous substances):

None of the ingredients is listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

79-20-9 Methyl acetate **ACTIVE**

· Hazardous Air Pollutants

None of the ingredients is listed.

- Proposition 65
- · Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

- Carcinogenic categories
- · EPA (Environmental Protection Agency)

None of the ingredients is listed.

TLV (Threshold Limit Value)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

All chemicals may pose unknown hazards and should be used with caution. This SDS applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. Cayman Chemical Company assumes (Contd. on page 10)

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no responsibility for incidental or consequential damages, including lost profits, arising from the use of these data. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Cayman Chemical Company assumes no responsibility for the completeness or accuracy of the information contained herein.

- · Department issuing SDS: Environment protection department.
- Date of preparation / last revision 07/13/2023
- Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit

Flammable Liquids 2: Flammable liquids – Category 2

Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A
Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3

* Data compared to the previous version altered.



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Safety Data Sheet acc. to OSHA HCS

Printing date 02/15/2022

Revision date 02/15/2022

1 Identification

· Product identifier

Trade name: MCC-555 · Article number: 70735

· CAS Number: 161600-01-7

· Application of the substance / the mixture

This product is for research use - Not for human or veterinary diagnostic or therapeutic use.

- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Cayman Chemical Co. 1180 E. Ellsworth Rd. Ann Arbor, MI 48108

USA

· Information department: Product safety department

· Emergency telephone number:

During normal opening times: +1 (734) 971-3335

US/CANADA: 800-424-9300 Outside US/CANADA: 703-741-5970

2 Hazard(s) identification

· Classification of the substance or mixture



GHS09 Environment

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

- · Label elements
- · GHS label elements

The substance is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms



· Signal word Warning

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Trade name: MCC-555

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· Hazard statements

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P273 Avoid release to the environment.

P391 Collect spillage.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- · Classification system:
- NFPA ratings (scale 0 4)



Health = 0 Fire = 0 Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = 0 Fire = 0 Reactivity = 0

- · Other hazards
- · Results of PBT and vPvB assessment
- PBT: Not applicable.
- · **vPvB:** Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Substances
- · CAS No. Description 161600-01-7 MCC-555

4 First-aid measures

- Description of first aid measures
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: If symptoms persist consult doctor.
- Information for doctor:
- · Most important symptoms and effects, both acute and delayed

May cause anemia, cough, CNS depression, drowsiness, headache, heart damage, lassitude (weakness, exhaustion), liver damage, narcosis, reproductive effects, teratogenic effects. No further relevant information available.

· Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
- · Suitable extinguishing agents:

Use fire fighting measures that suit the environment.

A solid water stream may be inefficient.

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Trade name: MCC-555

(Contd. from page 2)

- Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Not required.
- **Environmental precautions:**

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

- · Methods and material for containment and cleaning up: Pick up mechanically.
- · Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

- Protective Action Criteria for Chemicals
- · PAC-1: Substance is not listed.
- · PAC-2: Substance is not listed.
- · PAC-3: Substance is not listed.

7 Handling and storage

- · Handling:
- · Precautions for safe handling

No special precautions are necessary if used correctly.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Avoid prolonged or repeated exposure.

Keep away from sources of ignition.

Take precautionary measures against static discharge.re.

- Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- Components with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists that were valid during the creation were used as basis.
- Exposure controls
- Personal protective equipment:
- · General protective and hygienic measures: Wash hands before breaks and at the end of work.
- · Breathing equipment: Not required.
- · Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection: Not required.

Information on basic physical and General Information	chemical properties
General information Appearance:	
Form:	Solid
Color:	Not determined.
Odor:	Characteristic
Structural Formula	C21H16FNO3S
Molecular Weight	381.4 g/mol
Odor threshold:	Not determined.
pH-value:	Not applicable.
Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
Flash point:	Not applicable.
Flammability (solid, gaseous):	Product is not flammable.
Decomposition temperature:	Not determined.
Auto igniting:	Not determined.
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapor pressure:	Not applicable.
Density:	Not determined.
Relative density	Not determined.
Vapor density	Not applicable.
Evaporation rate	Not applicable.
Solubility in / Miscibility with	
Water:	Not determined.
Partition coefficient (n-octanol/wa	ter): Not determined.

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Trade name: MCC-555

Kinematic:
Not applicable.

Not applicable.

Not applicable.

Not applicable.

SOLUBILITY DMF: 30 mg/ml; DMSO: 30 mg/ml; DMSO:PBS (pH 7.2) (1: 1): 1 mg/ml; Ethanol: 1 mg/ml

• Other information No further relevant information available.

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products:

carbon dioxide, carbon monoxide, hydrogen fluoride, nitrogen oxides, sulfur oxides

11 Toxicological information

- · RTECS Number XJ5813445
- · Information on toxicological effects
- · Acute toxicity:
- LD/LC50 values that are relevant for classification:

Oral TDLO 3,120 ml/kg/90D continuous (dog)

- Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:
- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer) Substance is not listed.
- · NTP (National Toxicology Program) Substance is not listed.
- · OSHA-Ca (Occupational Safety & Health Administration) Substance is not listed.

12 Ecological information

- Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- Ecotoxical effects:
- · Remark: Very toxic for fish
- Additional ecological information:
- General notes:

Water hazard class 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

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Danger to drinking water if even small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

- Very toxic for aquatic organisms

 Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- · **Recommendation:** Disposal must be made according to official regulations.

Transport information	
UN-Number	
DOT, IMDG, IATA	UN3077
UN proper shipping name	
DOT, IATA	Environmentally hazardous substance, solid, n.c (MCC-555)
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANC SOLID, N.O.S. (MCC-555)
Transport hazard class(es)	
DOT, IMDG	
Class Label	9 Miscellaneous dangerous substances and articles9
IATA	
Class	9 Miscellaneous dangerous substances and articles
Label	9
Packing group DOT, IMDG, IATA	III
Environmental hazards:	
Special marking (IATA):	Symbol (fish and tree)

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Special precautions for user	Warning: Miscellaneous dangerous substances an articles
Hazard identification number (Kemler code):	90
EMS Number:	F-A,S-F
Stowage Category	A
Stowage Code	SW23 When transported in BK3 bulk container, se 7.6.2.12 and 7.7.3.9.
Transport in bulk according to Annex II of	
MARPOL73/78 and the IBC Code	Not applicable.
Transport/Additional information:	
DOT	
Quantity limitations	On passenger aircraft/rail: 400 kg
	On cargo aircraft only: 400 kg
IMDG	
Limited quantities (LQ)	5 kg
Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 g
	Maximum net quantity per outer packaging: 1000 g
IATA	
Remarks:	When sold in quantities of less than or equal to 1 m
	or 1 g, with an Excepted Quantity Code of
	E1, E2, E4, or E5, this item meets the De Minim Quantities exemption, per IATA 2.6.10.
	Therefore packaging does not have to be labeled a
	Dangerous Goods/Excepted Quantity.
UN "Model Regulation":	UN 3077 ENVIRONMENTALLY HAZARDOU
-	SUBSTANCE, SOLID, N.O.S. (MCC-555), 9, III

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.
- · Sara
- · Section 355 (extremely hazardous substances): Substance is not listed.
- · Section 313 (Specific toxic chemical listings): Substance is not listed.
- · TSCA (Toxic Substances Control Act): Substance is not listed.
- · Hazardous Air Pollutants Substance is not listed.
- · Proposition 65
- · Chemicals known to cause cancer: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for females: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for males: Substance is not listed.
- · Chemicals known to cause developmental toxicity: Substance is not listed.
- · Carcinogenic categories
- · EPA (Environmental Protection Agency) Substance is not listed.
- · TLV (Threshold Limit Value) Substance is not listed.
- · NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is not listed.

(Contd. on page 8)

Revision date 02/15/2022 Printing date 02/15/2022

Trade name: MCC-555

(Contd. from page 7)

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

All chemicals may pose unknown hazards and should be used with caution. This SDS applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. Cayman Chemical Company assumes no responsibility for incidental or consequential damages, including lost profits, arising from the use of these data. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Cayman Chemical Company assumes no responsibility for the completeness or accuracy of the information contained herein.

- · **Department issuing SDS:** Environment protection department.
- · Contact: -
- Date of preparation / last revision 02/15/2022 / -
- · Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard - Category 1 Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard - Category 1



Page 1/8

Safety Data Sheet acc. to OSHA HCS

Printing date 07/13/2023

Revision date 07/13/2023

1 Identification

· Product identifier

· Trade name: GW 9662 · Article number: 70785

· CAS Number: 22978-25-2 · EC number: 636-590-7

· Application of the substance / the mixture

This product is for research use - Not for human or veterinary diagnostic or therapeutic use.

- · Details of the supplier of the safety data sheet
- Manufacturer/Supplier:

Cayman Chemical Co. 1180 E. Ellsworth Rd. Ann Arbor, MI 48108 USA

· Information department: Product safety department

· Emergency telephone number:

During normal opening times: +1 (734) 971-3335

US/CANADA: 800-424-9300

Outside US/CANADA: 703-741-5970

2 Hazard(s) identification

· Classification of the substance or mixture



Eye Irritation 2A H319 Causes serious eye irritation.

Sensitization - Skin 1 H317 May cause an allergic skin reaction.

- · Label elements
- · GHS label elements

The substance is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms



(Contd. on page 2)

Printing date 07/13/2023 Revision date 07/13/2023

Trade name: GW 9662

(Contd. from page 1)

· Signal word Warning

· Hazard statements

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P264 Wash thoroughly after handling.

P272 Contaminated work clothing must not be allowed out of the workplace.

P280 Wear protective gloves / eye protection / face protection.

P302+P352 If on skin: Wash with plenty of water.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P321 Specific treatment (see on this label).

P337+P313 If eye irritation persists: Get medical advice/attention.

P363 Wash contaminated clothing before reuse.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

- Classification system:
- NFPA ratings (scale 0 4)



Health = 2 Fire = 0 Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = 2 Fire = 0 Reactivity = 0

- · Other hazards
- · Results of PBT and vPvB assessment
- PBT: Not applicable.vPvB: Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Substances

· CAS No. Description 22978-25-2 GW 9662

· Identification number(s)

· **EC number**: 636-590-7

4 First-aid measures

- Description of first aid measures
- · After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

(Contd. on page 3)

Printing date 07/13/2023 Revision date 07/13/2023

Trade name: GW 9662

· After swallowing: If symptoms persist consult doctor.

(Contd. from page 2)

- Information for doctor:
- · Most important symptoms and effects, both acute and delayed

No further relevant information available.

· Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- Suitable extinguishing agents:

Use fire fighting measures that suit the environment.

A solid water stream may be inefficient.

- · Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Not required.
- · Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · Methods and material for containment and cleaning up: Pick up mechanically.
- · Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

- Protective Action Criteria for Chemicals
- · PAC-1: Substance is not listed.
- PAC-2: Substance is not listed.
- · PAC-3: Substance is not listed.

7 Handling and storage

- · Handling:
- Precautions for safe handling

No special precautions are necessary if used correctly.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Avoid prolonged or repeated exposure.

Keep away from sources of ignition.

Take precautionary measures against static discharge.re.

- Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- **Storage:** Store in accordance with information listed on the product insert.
- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed.
- · Specific end use(s) No further relevant information available.

HS

Printing date 07/13/2023 Revision date 07/13/2023

Trade name: GW 9662

(Contd. from page 3)

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see section 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace: Not required.
- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

- Breathing equipment: Not required.
- Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

- · Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Solid

Color: Not determined.

Odor: Characteristic

Structural Formula C13H9CIN2O3

Molecular Weight 276.7 g/mol

Odor threshold: Not determined.

· **pH-value:** Not applicable.

(Contd. on page 5)

Printing date 07/13/2023 Revision date 07/13/2023

Trade name: GW 9662

	(Contd. from page
 Change in condition Melting point/Melting range: Boiling point/Boiling range: 	Undetermined. Undetermined.
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Product is not flammable.
· Decomposition temperature:	Not determined.
· Ignition temperature:	Not determined.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits: Lower: Upper:	Not determined. Not determined.
· Vapor pressure:	Not applicable.
Density: Relative density Vapor density Evaporation rate	Not determined. Not determined. Not applicable. Not applicable.
· Solubility in / Miscibility with Water:	Not determined.
· Partition coefficient (n-octanol/wa	ter): Not determined.
· Viscosity: Dynamic: Kinematic: SOLUBILITY	Not applicable. Not applicable. DMF: 35 mg/ml; DMF:PBS (7.2 pH) (1:2): 0.5 mg/ml; DMSC 33 mg/ml; Ethanol: 2 mg/ml
· Other information	No further relevant information available.

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: strong oxidizing agents
- · Hazardous decomposition products: carbon oxides, hydrogen chloride, nitrogen oxides

11 Toxicological information

- · RTECS Number CV2465500
- Information on toxicological effects
- · Acute toxicity:
- · LD/LC50 values that are relevant for classification:

Subcutaneous TDLO 237.1 µg/kg (mouse)

(Contd. on page 6)

Printing date 07/13/2023 Revision date 07/13/2023

Trade name: GW 9662

(Contd. from page 5)

- · Primary irritant effect:
- · on the skin: No irritant effect.
- on the eye: Irritating effect.
- · Sensitization: Sensitization possible through skin contact.
- · Additional toxicological information:
- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer) Substance is not listed.
- · NTP (National Toxicology Program) Substance is not listed.
- · OSHA-Ca (Occupational Safety & Health Administration) Substance is not listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.

14 Transport information

· UN-Number · DOT, IMDG, IATA	not regulated	
· UN proper shipping name · DOT, IMDG, IATA	not regulated	

- · Transport hazard class(es)
- · DOT, ADN, IMDG, IATA
- · Class not regulated

(Contd. on page 7)

Revision date 07/13/2023 Printing date 07/13/2023

Trade name: GW 9662

		(Contd. from page 6)
· Packing group · DOT, IMDG, IATA	not regulated	
· Environmental hazards:	Not applicable.	
· Special precautions for user	Not applicable.	
Transport in bulk according to Anne. MARPOL73/78 and the IBC Code	x II of Not applicable.	
· UN "Model Regulation":	not regulated	

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.
- · Section 355 (extremely hazardous substances): Substance is not listed.
- · Section 313 (Specific toxic chemical listings): Substance is not listed.
- · TSCA (Toxic Substances Control Act): Substance is not listed.
- · Hazardous Air Pollutants Substance is not listed.
- · Proposition 65
- · Chemicals known to cause cancer: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for females: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for males: Substance is not listed.
- · Chemicals known to cause developmental toxicity: Substance is not listed.
- · Carcinogenic categories
- · EPA (Environmental Protection Agency) Substance is not listed.
- · TLV (Threshold Limit Value) Substance is not listed.
- · NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is not listed.
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

All chemicals may pose unknown hazards and should be used with caution. This SDS applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. Cayman Chemical Company assumes no responsibility for incidental or consequential damages, including lost profits, arising from the use of these data. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Cayman Chemical Company assumes no responsibility for the completeness or accuracy of the information contained herein.

- · **Department issuing SDS:** Environment protection department.
- · Contact: -
- Date of preparation / last revision 07/13/2023
- Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

(Contd. on page 8)

Printing date 07/13/2023 Revision date 07/13/2023

Trade name: GW 9662

LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A Sensitization - Skin 1: Skin sensitisation – Category 1

* Data compared to the previous version altered.

(Contd. from page 7)



Page 1/7

Safety Data Sheet acc. to OSHA HCS

Printing date 02/15/2022

Revision date 02/15/2022

1 Identification

· Product identifier

· Trade name: <u>Ciglitazone</u> · Article number: 71730

· CAS Number: 74772-77-3

· Application of the substance / the mixture

This product is for research use - Not for human or veterinary diagnostic or therapeutic use.

- · Details of the supplier of the safety data sheet
- Manufacturer/Supplier:
 Cayman Chemical Co.

1180 E. Ellsworth Rd. Ann Arbor, MI 48108

USA

· Information department: Product safety department

· Emergency telephone number:

During normal opening times: +1 (734) 971-3335

US/CANADA: 800-424-9300 Outside US/CANADA: 703-741-5970

2 Hazard(s) identification

· Classification of the substance or mixture



GHS08 Health hazard

Repr. 2 H361 Suspected of damaging fertility or the unborn child.

- · Label elements
- · GHS label elements

The substance is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms



GHS08

- · Signal word Warning
- Hazard statements

H361 Suspected of damaging fertility or the unborn child.

(Contd. on page 2)

Printing date 02/15/2022 Revision date 02/15/2022

Trade name: Ciglitazone

· Precautionary statements

(Contd. from page 1)

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood. P280 Wear protective gloves/protective clothing/eye protection/face protection.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

- Classification system:
- NFPA ratings (scale 0 4)



Health = 0 Fire = 0 Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = 0Fire = 0Reactivity = 0

- · Other hazards
- · Results of PBT and vPvB assessment
- PBT: Not applicable.vPvB: Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Substances

• CAS No. Description 74772-77-3 Ciglitazone

4 First-aid measures

- Description of first aid measures
- · **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: If symptoms persist consult doctor.
- Information for doctor:
- · Most important symptoms and effects, both acute and delayed

May cause anemia, cough, CNS depression, drowsiness, headache, heart damage, lassitude (weakness, exhaustion), liver damage, narcosis, reproductive effects, teratogenic effects. No further relevant information available.

· Indication of any immediate medical attention and special treatment needed No further relevant information available.

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Printing date 02/15/2022 Revision date 02/15/2022

Trade name: Ciglitazone

(Contd. from page 2)

5 Fire-fighting measures

- · Extinguishing media
- Suitable extinguishing agents:

Use fire fighting measures that suit the environment.

A solid water stream may be inefficient.

- · Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Not required.
- · Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to item 13.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

- **Protective Action Criteria for Chemicals**
- · PAC-1: Substance is not listed.
- · PAC-2: Substance is not listed.
- · PAC-3: Substance is not listed.

7 Handling and storage

- · Handling:
- Precautions for safe handling

No special precautions are necessary if used correctly.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Avoid prolonged or repeated exposure.

Keep away from sources of ignition.

Take precautionary measures against static discharge.re.

- Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- Components with limit values that require monitoring at the workplace: Not required.
- · Additional information: The lists that were valid during the creation were used as basis.

(Contd. on page 4)

Printing date 02/15/2022 Revision date 02/15/2022

Trade name: Ciglitazone

(Contd. from page 3)

- · Exposure controls
- Personal protective equipment:
- General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

- · Breathing equipment: Not required.
- Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection: Not required.

Information on basic physical and	chemical properties
General Information	
Appearance: Form:	Solid
Color:	Not determined.
Odor:	Characteristic
Structural Formula	C18H23NO3S
Molecular Weight	333.4 g/mol
Odor threshold:	Not determined.
pH-value:	Not applicable.
Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
Flash point:	Not applicable.
Flammability (solid, gaseous):	Product is not flammable.
Decomposition temperature:	Not determined.
Auto igniting:	Not determined.
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapor pressure:	Not applicable.
Density:	Not determined.
Relative density	Not determined.

Printing date 02/15/2022 Revision date 02/15/2022

Trade name: Ciglitazone

(Contd. from page 4)

Vapor densityEvaporation rateNot applicable.Not applicable.

· Solubility in / Miscibility with

Water: Not determined.

 $\cdot \ \textbf{Partition coefficient (n-octanol/water):} \ \textbf{Not determined}.$

· Viscosity:

Dynamic: Not applicable. **Kinematic:** Not applicable.

SOLUBILITY DMF: 16 mg/ml; DMSO: 21 mg/ml; DMSO:PBS (pH 7.2) (1:

4): 400 μg/ml; Ethanol: 29 mg/ml

• Other information No further relevant information available.

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- · Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: strong oxidizing agents
- · Hazardous decomposition products:

nitrogen oxides, hydrogen sulfide, carbon monoxide,carbon dioxide

11 Toxicological information

- · RTECS Number XJ5813700
- · Information on toxicological effects
- · Acute toxicity:
- LD/LC50 values that are relevant for classification:

Oral TDLO 2,460 ml/kg/82D intermittent (rat)

- Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:
- Carcinogenic categories
- · IARC (International Agency for Research on Cancer) Substance is not listed.
- · NTP (National Toxicology Program) Substance is not listed.
- · OSHA-Ca (Occupational Safety & Health Administration) Substance is not listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.

(Contd. on page 6)

Printing date 02/15/2022 Revision date 02/15/2022

Trade name: Ciglitazone

(Contd. from page 5)

- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · **vPvB:** Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.

	14 T	ransp	ort inf	ormat	ion
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· UN-Number · DOT, IMDG, IATA	not regulated	
 UN proper shipping name DOT, IMDG, IATA 	not regulated	
· Transport hazard class(es)		
· DOT, ADN, IMDG, IATA · Class	not regulated	
· Packing group · DOT, IMDG, IATA	not regulated	
· Environmental hazards:	Not applicable.	
· Special precautions for user	Not applicable.	
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.		
· UN "Model Regulation":	not regulated	

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.
- Cara
- · Section 355 (extremely hazardous substances): Substance is not listed.

(Contd. on page 7)

Printing date 02/15/2022 Revision date 02/15/2022

Trade name: Ciglitazone

(Contd. from page 6)

- · Section 313 (Specific toxic chemical listings): Substance is not listed.
- TSCA (Toxic Substances Control Act): Substance is not listed.
- · Hazardous Air Pollutants Substance is not listed.
- · Proposition 65
- · Chemicals known to cause cancer: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for females: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for males: Substance is not listed.
- · Chemicals known to cause developmental toxicity: Substance is not listed.
- · Carcinogenic categories
- · EPA (Environmental Protection Agency) Substance is not listed.
- · TLV (Threshold Limit Value) Substance is not listed.
- · NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is not listed.
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

All chemicals may pose unknown hazards and should be used with caution. This SDS applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. Cayman Chemical Company assumes no responsibility for incidental or consequential damages, including lost profits, arising from the use of these data. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Cayman Chemical Company assumes no responsibility for the completeness or accuracy of the information contained herein.

- · **Department issuing SDS:** Environment protection department.
- Contact: -
- · Date of preparation / last revision 02/15/2022 / -
- · Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Repr. 2: Reproductive toxicity - Category 2

US



Page 1/9

Safety Data Sheet acc. to OSHA HCS

Printing date 02/11/2022

Revision date 02/11/2022

1 Identification

· Product identifier

· Trade name: Rosiglitazone

· Article number: 71740

• CAS Number: 122320-73-4 • EC number: 924-121-1

· Application of the substance / the mixture

This product is for research use - Not for human or veterinary diagnostic or therapeutic use.

- · Details of the supplier of the safety data sheet
- Manufacturer/Supplier:

Cayman Chemical Co. 1180 E. Ellsworth Rd. Ann Arbor, MI 48108 USA

· Information department: Product safety department

· Emergency telephone number:

During normal opening times: +1 (734) 971-3335

US/CANADA: 800-424-9300

Outside US/CANADA: 703-741-5970

2 Hazard(s) identification

· Classification of the substance or mixture



GHS08 Health hazard

Repr. 2 H361 Suspected of damaging fertility or the unborn child.



GHS09 Environment

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.



Eye Irrit. 2A H319 Causes serious eye irritation.

(Contd. on page 2)

Printing date 02/11/2022 Revision date 02/11/2022

Trade name: Rosiglitazone

(Contd. from page 1)

- · Label elements
- · GHS label elements

The substance is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms







GHS07 GHS08 GHS09

- · Signal word Warning
- · Hazard statements

H319 Causes serious eye irritation.

H361 Suspected of damaging fertility or the unborn child.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P264 Wash thoroughly after handling. Avoid release to the environment. P273

Wear protective gloves/protective clothing/eye protection/face protection. P280

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

IF exposed or concerned: Get medical advice/attention. P308+P313 If eye irritation persists: Get medical advice/attention. P337+P313

Collect spillage. P391 P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 2 Fire = 0Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = 2 Fire = 0 Reactivity = 0

- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable. vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Substances
- · CAS No. Description

122320-73-4 Rosiglitazone

(Contd. on page 3)

Revision date 02/11/2022 Printing date 02/11/2022

Trade name: Rosiglitazone

· Identification number(s)

(Contd. from page 2)

· EC number: 924-121-1

4 First-aid measures

- Description of first aid measures
- · **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- · **After skin contact:** Generally the product does not irritate the skin.
- · After eve contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- · After swallowing: If symptoms persist consult doctor.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed

May cause anemia, cough, CNS depression, drowsiness, headache, heart damage, lassitude (weakness, exhaustion), liver damage, narcosis, reproductive effects, teratogenic effects.

No further relevant information available. · Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- Suitable extinguishing agents:

Use fire fighting measures that suit the environment.

A solid water stream may be inefficient.

- · Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures Not required.
- · Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to item 13.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

- · Protective Action Criteria for Chemicals
- · PAC-1: Substance is not listed.
- · PAC-2: Substance is not listed.
- · PAC-3: Substance is not listed.

Printing date 02/11/2022 Revision date 02/11/2022

Trade name: Rosiglitazone

(Contd. from page 3)

7 Handling and storage

· Handling:

Precautions for safe handling

No special precautions are necessary if used correctly.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Avoid prolonged or repeated exposure.

Keep away from sources of ignition.

Take precautionary measures against static discharge.re.

- · Information about protection against explosions and fires: No special measures required.
- Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

- Breathing equipment: Not required.
- · Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

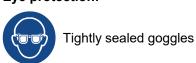
(Contd. on page 5)

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Trade name: Rosiglitazone

· Eye protection:

(Contd. from page 4)



9 Physical and chemical proper	ties
Information on basic physical and cl	nemical properties
General Information	
· Appearance: Form:	Solid
Color:	Not determined.
· Odor:	Characteristic
· Structural Formula	C18H19N3O3S
Molecular Weight	357.4 g/mol
· Odor threshold:	Not determined.
· pH-value:	Not applicable.
· Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Product is not flammable.
· Decomposition temperature:	Not determined.
· Auto igniting:	Not determined.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapor pressure:	Not applicable.
· Density:	Not determined.
· Relative density	Not determined.
Vapor density	Not applicable.
Evaporation rate	Not applicable.
· Solubility in / Miscibility with	
Water:	Not determined.
· Partition coefficient (n-octanol/water	r): Not determined.
· Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
SOLUBILITY	DMF: 25 mg/ml; DMSO: 34 mg/ml; DMSO:PBS (7.2 pH) (1: 3): 0.5 mg/ml; Ethanol: 1 mg/ml

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Printing date 02/11/2022 Revision date 02/11/2022

Trade name: Rosiglitazone

(Contd. from page 5)

· Other information

No further relevant information available.

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: strong oxidizing agents
- Hazardous decomposition products:

carbon dioxide, carbon monoxide, nitrogen oxides, sulfur oxides

11 Toxicological information

- · RTECS Number XJ5813850
- · Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- · on the skin: No irritant effect.
- on the eye: Irritating effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:
- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer) 3
- · NTP (National Toxicology Program) Substance is not listed.
- · OSHA-Ca (Occupational Safety & Health Administration) Substance is not listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- · Remark: Very toxic for fish
- Additional ecological information:
- · General notes:

Water hazard class 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms

- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

(Contd. on page 7)

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Trade name: Rosiglitazone

· Other adverse effects No further relevant information available.

(Contd. from page 6)

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.

UN-Number	
DOT, IMDG, IATA	UN3077
UN proper shipping name	
DOT, IATA	Environmentally hazardous substance, solid, n.o (Rosiglitazone)
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANC SOLID, N.O.S. (Rosiglitazone)
Transport hazard class(es)	
DOT, IMDG	
Class Label	9 Miscellaneous dangerous substances and articles 9
IATA	
9	
Class Label	9 Miscellaneous dangerous substances and articles 9
Packing group DOT, IMDG, IATA	III
Environmental hazards:	
Special marking (IATA):	Symbol (fish and tree)
Special precautions for user	Warning: Miscellaneous dangerous substances ararticles
Hazard identification number (Kemler code):	
EMS Number:	F-A,S-F
Stowage Category	A

Printing date 02/11/2022 Revision date 02/11/2022

Trade name: Rosiglitazone

	(Contd. from page 7)
· Stowage Code	SW23 When transported in BK3 bulk container, see 7.6.2.12 and 7.7.3.9.
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT · Quantity limitations	On passenger aircraft/rail: 400 kg On cargo aircraft only: 400 kg
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	5 kg Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
· IATA · Remarks:	When sold in quantities of less than or equal to 1 mL, or 1 g, with an Excepted Quantity Code of E1, E2, E4, or E5, this item meets the De Minimis Quantities exemption, per IATA 2.6.10. Therefore packaging does not have to be labeled as Dangerous Goods/Excepted Quantity.
· UN "Model Regulation":	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ROSIGLITAZONE), 9, III

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.
- · Sara
- · Section 355 (extremely hazardous substances): Substance is not listed.
- · Section 313 (Specific toxic chemical listings): Substance is not listed.
- · TSCA (Toxic Substances Control Act): Substance is not listed.
- · Hazardous Air Pollutants Substance is not listed.
- Proposition 65
- · Chemicals known to cause cancer: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for females: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for males: Substance is not listed.
- · Chemicals known to cause developmental toxicity: Substance is not listed.
- · Carcinogenic categories
- · EPA (Environmental Protection Agency) Substance is not listed.
- · TLV (Threshold Limit Value) Substance is not listed.
- · NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is not listed.
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

All chemicals may pose unknown hazards and should be used with caution. This SDS applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. Cayman Chemical Company assumes (Contd. on page 9)

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Trade name: Rosiglitazone

(Contd. from page 8)

no responsibility for incidental or consequential damages, including lost profits, arising from the use of these data. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Cayman Chemical Company assumes no responsibility for the completeness or accuracy of the information contained herein.

- · Department issuing SDS: Environment protection department.
- · Contact:
- · Date of preparation / last revision 02/11/2022 / -
- · Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxić vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit

Eye Irrit. 2A: Serious eye damage/eye irritation - Category 2A

Repr. 2: Reproductive toxicity - Category 2

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1 Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

- US



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Safety Data Sheet acc. to OSHA HCS

Printing date 07/13/2023 Revision date 07/13/2023

1 Identification

· Product identifier

· Trade name: <u>Pioglitazone</u> · Article number: 71745

· CAS Number: 111025-46-8 · EC number:

601-029-7

· Application of the substance / the mixture

This product is for research use - Not for human or veterinary diagnostic or therapeutic use.

· Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Cayman Chemical Co. 1180 E. Ellsworth Rd. Ann Arbor, MI 48108 USA

· Information department: Product safety department

· Emergency telephone number:

During normal opening times: +1 (734) 971-3335

US/CANADA: 800-424-9300

Outside US/CANADA: 703-741-5970

2 Hazard(s) identification

· Classification of the substance or mixture



GHS07

Acute Toxicity - Oral 4 H302 Harmful if swallowed.

Acute Toxicity - Dermal 4 H312 Harmful in contact with skin.

Acute Toxicity - Inhalation 4 H332 Harmful if inhaled.

- · Label elements
- · GHS label elements

The substance is classified and labeled according to the Globally Harmonized System (GHS).

(Contd. on page 2)

(Contd. from page 1)

Safety Data Sheet acc. to OSHA HCS

Printing date 07/13/2023 Revision date 07/13/2023

Trade name: Pioglitazone

Hazard pictograms



GHS07

- · Signal word Warning
- · Hazard statements

H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.

· Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves / protective clothing. P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.

P302+P352 If on skin: Wash with plenty of water.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P321 Specific treatment (see on this label).

P330 Rinse mouth.

P362+P364 Take off contaminated clothing and wash it before reuse.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

- · Classification system:
- NFPA ratings (scale 0 4)



Health = 3 Fire = 0 Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = 2 Fire = 0

Reactivity = 0

- Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable. · **vPvB:** Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Substances

· CAS No. Description 111025-46-8 Pioglitazone

· Identification number(s)

EC number: 601-029-7

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Printing date 07/13/2023 Revision date 07/13/2023

Trade name: Pioglitazone

(Contd. from page 2)

4 First-aid measures

- · Description of first aid measures
- · General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

- After skin contact: Generally the product does not irritate the skin.
- · After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: Immediately call a doctor.
- Information for doctor:
- · Most important symptoms and effects, both acute and delayed

No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- Suitable extinguishing agents:

Use fire fighting measures that suit the environment.

A solid water stream may be inefficient.

- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- · Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Not required.
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · Methods and material for containment and cleaning up: Ensure adequate ventilation.
- Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

- Protective Action Criteria for Chemicals
- · PAC-1: Substance is not listed.
- · PAC-2: Substance is not listed.
- · PAC-3: Substance is not listed.

7 Handling and storage

- · Handling:
- · Precautions for safe handling

Thorough dedusting.

Ensure good ventilation/exhaustion at the workplace.

Information about protection against explosions and fires: No special measures required.

(Contd. on page 4)

Printing date 07/13/2023 Revision date 07/13/2023

Trade name: Pioglitazone

(Contd. from page 3)

· Conditions for safe storage, including any incompatibilities

Keep container tightly closed.

Store in accordance with information listed on the product insert.

- · Storage: Store in accordance with information listed on the product insert.
- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: Keep receptacle tightly sealed.
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see section 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace: Not required.
- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures:

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection: Not required.

9 Physical and chemical properties

- · Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Crystalline Color: Not determined.

Odor: Characteristic

(Contd. on page 5)

Printing date 07/13/2023 Revision date 07/13/2023

Trade name: Pioglitazone

	(Contd. from page
· Structural Formula · Molecular Weight · Odor threshold:	C19H20N2O3S 356.4 g/mol Not determined.
· pH-value:	Not applicable.
· Change in condition Melting point/Melting range: Boiling point/Boiling range:	Undetermined. Undetermined.
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Product is not flammable.
Decomposition temperature:	Not determined.
· Ignition temperature:	Not determined.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits: Lower: Upper:	Not determined. Not determined.
· Vapor pressure:	Not applicable.
Density: Relative density Vapor density Evaporation rate	Not determined. Not determined. Not applicable. Not applicable.
· Solubility in / Miscibility with Water:	Not determined.
· Partition coefficient (n-octanol/wa	ater): Not determined.
· Viscosity: Dynamic: Kinematic: SOLUBILITY	Not applicable. Not applicable. DMF: 2.5 mg/ml; DMSO: 2.5 mg/ml; DMSO:PBS(pH 7.2)(1): 100 µg/ml
· Other information	No further relevant information available.

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: strong oxidizing agents
- · Hazardous decomposition products: carbon oxides,, hydrogen sulfide, nitrogen oxides

11 Toxicological information

· RTECS Number XJ5813430

(Contd. on page 6)

Printing date 07/13/2023 Revision date 07/13/2023

Trade name: Pioglitazone

Information on toxicological effects

(Contd. from page 5)

- iniormation on toxicological ene
- · Acute toxicity:
- LD/LC50 values that are relevant for classification:

Intraperitoneal TDLO 40 mg/kg (rat)

- Primary irritant effect:
- · on the skin: No irritant effect. · on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:
- · Carcinogenic categories
- IARC (International Agency for Research on Cancer) 2A
- · NTP (National Toxicology Program) Substance is not listed.
- · OSHA-Ca (Occupational Safety & Health Administration) Substance is not listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- Additional ecological information:
- · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- · **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- · UN-Number
- · DOT, IMDG, IATA not regulated
- · UN proper shipping name
- · DOT, IMDG, IATA not regulated

(Contd. on page 7)

Printing date 07/13/2023 Revision date 07/13/2023

Trade name: Pioglitazone

		(Contd. from page 6)
· Transport hazard class(es)		
DOT, ADN, IMDG, IATA		
· Class	not regulated	
· Packing group		
· DOT, IMDG, IATA	not regulated	
· Environmental hazards:	Not applicable.	
· Special precautions for user	Not applicable.	
· Transport in bulk according to Annex	c II of	
MARPOL73/78 and the IBC Code	Not applicable.	
· UN "Model Regulation":	not regulated	

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.
- · Sara
- · Section 355 (extremely hazardous substances): Substance is not listed.
- · Section 313 (Specific toxic chemical listings): Substance is not listed.
- TSCA (Toxic Substances Control Act): Substance is not listed.
- · Hazardous Air Pollutants Substance is not listed.
- · Proposition 65
- · Chemicals known to cause cancer: Substance is listed.
- · Chemicals known to cause reproductive toxicity for females: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for males: Substance is not listed.
- · Chemicals known to cause developmental toxicity: Substance is not listed.
- · Carcinogenic categories
- · EPA (Environmental Protection Agency) Substance is not listed.
- · TLV (Threshold Limit Value) Substance is not listed.
- · NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is not listed.
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

All chemicals may pose unknown hazards and should be used with caution. This SDS applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. Cayman Chemical Company assumes no responsibility for incidental or consequential damages, including lost profits, arising from the use of these data. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Cayman Chemical Company assumes no responsibility for the completeness or accuracy of the information contained herein.

- · Department issuing SDS: Environment protection department.
- · Contact: -
- · Date of preparation / last revision 07/13/2023
- Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation IATA: International Air Transport Association

(Contd. on page 8)

Printing date 07/13/2023 Revision date 07/13/2023

Trade name: Pioglitazone

EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit
Acute Toxicity - Oral 4: Acute toxicity - Category 4

* Data compared to the previous version altered.

(Contd. from page 7)



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Safety Data Sheet acc. to OSHA HCS

Printing date 02/15/2022

Revision date 02/15/2022

1 Identification

· Product identifier

· Trade name: <u>Troglitazone</u>

· Article number: 71750

• **CAS Number:** 97322-87-7

· Application of the substance / the mixture

This product is for research use - Not for human or veterinary diagnostic or therapeutic use.

- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Cayman Chemical Co. 1180 E. Ellsworth Rd. Ann Arbor, MI 48108 USA

· Information department: Product safety department · Emergency telephone number:

During normal opening times: +1 (734) 971-3335

US/CANADA: 800-424-9300
Outside US/CANADA: 703-741-5970

2 Hazard(s) identification

· Classification of the substance or mixture

The substance is not classified, according to the Globally Harmonized System (GHS).

- · Label elements
- · GHS label elements None
- · Hazard pictograms None
- · Signal word None
- · Hazard statements None
- · Classification system:
- NFPA ratings (scale 0 4)



Health = 0 Fire = 0 Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = 0 Fire = 0

Reactivity = 0

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· Other hazards

· Results of PBT and vPvB assessment

· **PBT:** Not applicable. · **vPvB:** Not applicable.

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3 Composition/information on ingredients

· Chemical characterization: Substances

· CAS No. Description 97322-87-7 Troglitazone

4 First-aid measures

- · Description of first aid measures
- · General information: No special measures required.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- · After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: If symptoms persist consult doctor.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed

May cause anemia, cough, CNS depression, drowsiness, headache, heart damage, lassitude (weakness, exhaustion), liver damage, narcosis, reproductive effects, teratogenic effects. No further relevant information available.

· Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
- · Suitable extinguishing agents:

Use fire fighting measures that suit the environment.

A solid water stream may be inefficient.

- · Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Not required.
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · Methods and material for containment and cleaning up: Pick up mechanically.
- · Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

- · Protective Action Criteria for Chemicals
- · PAC-1: Substance is not listed.
- · PAC-2: Substance is not listed.

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· PAC-3: Substance is not listed.

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7 Handling and storage

- · Handling:
- Precautions for safe handling No special measures required.
- Information about protection against explosions and fires: No special measures required.
- Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

- · Breathing equipment: Not required.
- · Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection: Not required.

9 Physical and chemical properties

- · Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Solid

Color: Not determined.

Odor: Characteristic

Structural Formula C24H27NO5S

Molecular Weight 441.5 g/mol

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	(Contd. from page
· Odor threshold:	Not determined.
· pH-value:	Not applicable.
 Change in condition Melting point/Melting range: Boiling point/Boiling range: 	Undetermined. Undetermined.
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Product is not flammable.
· Decomposition temperature:	Not determined.
· Auto igniting:	Not determined.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits: Lower: Upper:	Not determined. Not determined.
· Vapor pressure:	Not applicable.
· Density: · Relative density · Vapor density · Evaporation rate	Not determined. Not determined. Not applicable. Not applicable.
· Solubility in / Miscibility with Water:	Not determined.
· Partition coefficient (n-octanol/wa	ter): Not determined.
· Viscosity: Dynamic: Kinematic: SOLUBILITY	Not applicable. Not applicable. Ethanol: 300 μg/ml; DMSO:PBS (pH 7.2) (1:6): 100 μg/m DMSO: 30 mg/ml;DMF: 30 mg/ml
· Other information	No further relevant information available.

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- · Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: strong oxidizing agents
- · Hazardous decomposition products:

carbon dioxide, carbon monoxide, hydrogen sulfide, nitrogen oxides

11 Toxicological information

· RTECS Number XJ5813130

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Information on toxicological effects

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· Acute toxicity:

LD/LC50 values that are relevant for classification:

Oral	LD50	>5,000 mg/kg (rat)			
		TDLO 840 mg/kg/15W ir	nte	mittent	(wmı
	Intraperitoneal LD50	>4 g/kg (rat)			

- · Primary irritant effect:
- · on the skin: No irritant effect.
- on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

The substance is not subject to classification.

- Carcinogenic categories
- · IARC (International Agency for Research on Cancer) Substance is not listed.
- · NTP (National Toxicology Program) Substance is not listed.
- · OSHA-Ca (Occupational Safety & Health Administration) Substance is not listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation: Smaller quantities can be disposed of with household waste.
- Uncleaned packagings:
- · **Recommendation:** Disposal must be made according to official regulations.

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14 Transport information	
· UN-Number · DOT, IMDG, IATA	not regulated
· UN proper shipping name · DOT, IMDG, IATA	not regulated
· Transport hazard class(es)	
· DOT, ADN, IMDG, IATA · Class	not regulated
· Packing group · DOT, IMDG, IATA	not regulated
· Environmental hazards:	Not applicable.
· Special precautions for user	Not applicable.
Transport in bulk according to Annex MARPOL73/78 and the IBC Code	x II of Not applicable.
· UN "Model Regulation":	not regulated

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.
- · Sara
- · Section 355 (extremely hazardous substances): Substance is not listed.
- · Section 313 (Specific toxic chemical listings): Substance is not listed.
- · TSCA (Toxic Substances Control Act): Substance is not listed.
- · Hazardous Air Pollutants Substance is not listed.
- · Proposition 65
- · Chemicals known to cause cancer: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for females: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for males: Substance is not listed.
- · Chemicals known to cause developmental toxicity: Substance is not listed.
- · Carcinogenic categories
- · EPA (Environmental Protection Agency) Substance is not listed.
- · TLV (Threshold Limit Value) Substance is not listed.
- · NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is not listed.
- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

All chemicals may pose unknown hazards and should be used with caution. This SDS applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. Cayman Chemical Company assumes no responsibility for incidental or consequential damages, including lost profits, arising from the use of these data. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Cayman Chemical Company assumes no responsibility for the completeness or accuracy of the information contained herein.

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· Department issuing SDS: Environment protection department.

Contact: -

· Date of preparation / last revision 02/15/2022 / -

· Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit