

## 1 Identification

- **Product identifier**
- **Trade name:** Thalidomide
- **Article number:** 158753
- **CAS Number:**  
50-35-1
- **EC number:**  
200-031-1
- **Molecular Formula** C13 H10 N2 O4
- **Molecular Weight** 258.2
- **Application of the substance / the mixture** For Research Use Only
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
MP Biomedicals, LLC  
29525 Fountain Parkway  
Solon, OH 44139  
United States  
www.mpbio.com
- **Information department:** Quality Control Department
- **Emergency telephone number:** CHEMTREC: 1-800-424-9300 (1-703-527-3887)

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS06 Skull and crossbones

Acute Tox. 3 H301 Toxic if swallowed.



GHS08 Health hazard

Repr. 1A H360 May damage 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**



GHS06



GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**

thalidomide

- **Hazard statements**

Toxic if swallowed.

May damage fertility or the unborn child.

- **Precautionary statements**

Obtain special instructions before use.

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

Wash thoroughly after handling.

# Safety Data Sheet

acc. to OSHA HCS

Printing date 12/14/2017

Reviewed on 12/14/2017

Trade name: *Thalidomide*

(Contd. of page 1)

*Do not eat, drink or smoke when using this product.*

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

*If swallowed: Immediately call a poison center/doctor.*

*IF exposed or concerned: Get medical advice/attention.*

*Specific treatment (see on this label).*

*Rinse mouth.*

*Store locked up.*

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

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



· **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**

50-35-1 thalidomide

· **Identification number(s)**

· **EC number:** 200-031-1

### 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.*

*Consult your Doctor. Show the safety data sheet to the Doctor. Away from the dangerous area.*

*In case of irregular breathing or respiratory arrest provide artificial respiration.*

· **After inhalation:** *If breathed in, supply fresh air. If not breathing, give artificial respiration. Consult a Doctor.*

· **After skin contact:** *Wash off with soap and plenty of water. Consult a Doctor.*

· **After eye contact:** *Rinse opened eye for several minutes under running water. Then consult a doctor.*

· **After swallowing:** *Do not induce vomiting; immediately call for medical help.*

· **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.*

US  
(Contd. on page 3)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 12/14/2017

Reviewed on 12/14/2017

Trade name: Thalidomide

(Contd. of page 2)

## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **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**  
Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.  
For personal protection see section 8.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Pick up mechanically, dispose contaminated material as waste according to Section 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**

· <b>PAC-1:</b>
-----------------

Substance is not listed.
--------------------------

· <b>PAC-2:</b>
-----------------

Substance is not listed.
--------------------------

· <b>PAC-3:</b>
-----------------

Substance is not listed.
--------------------------

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Thorough dedusting.  
Open and handle receptacle with care.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:** 15 - 30°C
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Further information about storage conditions:** Protect from exposure to the light.
- **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.

(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 12/14/2017

Reviewed on 12/14/2017

Trade name: *Thalidomide*

(Contd. of page 3)

- **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.  
 Store protective clothing separately.
- **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:** Not required.

## 9 Physical and chemical properties

- |  |                           |
|--|---------------------------|
| · <b>Information on basic physical and chemical properties</b> |                           |
| · <b>General Information</b>                                   |                           |
| · <b>Appearance:</b>   |                           |
| Form:  | Powder                    |
| Color:   | White                     |
| Odor:  | Indeterminate             |
| Odor threshold:  | Not determined.           |
| pH-value:  | Not applicable.           |
| · <b>Change in condition</b>                                   |                           |
| 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:   | See section 10            |
| · <b>Explosion limits:</b>                                     |                           |
| Lower:   | Not Applicable            |
| Upper:   | Not Applicable            |
| Vapor pressure:  | Not applicable.           |

(Contd. on page 5)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 12/14/2017

Reviewed on 12/14/2017

Trade name: *Thalidomide*

(Contd. of page 4)

· <b>Density:</b>	<i>Not Applicable</i>
· <b>Relative density</b>	<i>Not determined.</i>
· <b>Vapor density</b>	<i>Not applicable.</i>
· <b>Evaporation rate</b>	<i>Not applicable.</i>
· <b>Solubility in / Miscibility with</b>	<i>Not Determined</i>
· <b>Water:</b>	<i>Not determined.</i>
· <b>Partition coefficient (n-octanol/water):</b>	<i>Not determined.</i>
· <b>Viscosity:</b>	
<b>Dynamic:</b>	<i>Not applicable.</i>
<b>Kinematic:</b>	<i>Not applicable.</i>
<b>VOC content:</b>	<i>0.00 %</i>
	<i>0.0 g/l / 0.00 lb/gl</i>
<b>Solids content:</b>	<i>100,0 %</i>
· <b>Other information</b>	<i>No further relevant information available.</i>

## 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.*

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· <b>LD/LC50 values that are relevant for classification:</b>
---

<b>ATE (Acute Toxicity Estimate)</b>
--------------------------------------

<i>Oral</i>	<i>LD50</i>	<i>2,000 mg/kg (mouse)</i>
-------------	-------------	----------------------------

<b>50-35-1 thalidomide</b>
----------------------------

<i>Oral</i>	<i>LD50</i>	<i>2,000 mg/kg (mouse)</i>
-------------	-------------	----------------------------

- **Primary irritant effect:**
- **on the skin:** *No irritant effect.*
- **on the eye:** *Irritant and potentially harmful*
- **Sensitization:** *No sensitizing effects known.*
- **Additional toxicological information:**

- **Carcinogenic categories**

· <b>IARC (International Agency for Research on Cancer)</b>
---

<i>Substance is not listed.</i>
---------------------------------

· <b>NTP (National Toxicology Program)</b>
--

<i>Substance is not listed.</i>
---------------------------------

(Contd. on page 6)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 12/14/2017

Reviewed on 12/14/2017

**Trade name:** *Thalidomide*

(Contd. of page 5)

· **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:**  
*Can not be disposed together with household garbage. Do not allow product to reach sewage system.*
- **Uncleaned packagings:**
- **Recommendation:** *Discard must be made according to official regulations.*

## 14 Transport information

- |   |   |
|---|---|
| · <b>UN-Number</b>  | UN2811  |
| · <b>DOT, ADR, IMDG, IATA</b>   |   |
| · <b>UN proper shipping name</b>  | <i>Toxic solids, organic, n.o.s. (thalidomide)</i>      |
| · <b>DOT</b>  | <i>2811 Toxic solids, organic, n.o.s. (thalidomide)</i> |
| · <b>ADR</b>  | <i>2811 Toxic solids, organic, n.o.s. (thalidomide)</i> |
| · <b>IMDG, IATA</b>   | <i>TOXIC SOLID, ORGANIC, N.O.S. (thalidomide)</i>       |
| · <b>Transport hazard class(es)</b>   |   |
| · <b>DOT</b>  |   |
|  |   |
| · <b>Class</b>  | <i>6.1 Toxic substances</i>                             |

(Contd. on page 7)

# Safety Data Sheet


acc. to OSHA HCS

Printing date 12/14/2017

Reviewed on 12/14/2017

Trade name: Thalidomide

(Contd. of page 6)

· <b>Label</b>	6.1
· <b>ADR, IMDG, IATA</b>	
	
· <b>Class</b>	6.1 Toxic substances
· <b>Label</b>	6.1
· <b>Packing group</b>	
· <b>DOT, ADR, IMDG, IATA</b>	III
· <b>Environmental hazards:</b>	
· <b>Marine pollutant:</b>	No
· <b>Special precautions for user</b>	Warning: Toxic substances
· <b>EMS Number:</b>	F-A,S-A
· <b>Stowage Category</b>	A
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>DOT</b>	
· <b>Quantity limitations</b>	On passenger aircraft/rail: 100 kg On cargo aircraft only: 200 kg
· <b>ADR</b>	
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5 kg
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
· <b>UN "Model Regulation":</b>	UN 2811 TOXIC SOLIDS, ORGANIC, N.O.S. (THALIDOMIDE), 6.1, III

## 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- 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.

(Contd. on page 8)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 12/14/2017

Reviewed on 12/14/2017

Trade name: *Thalidomide*

(Contd. of page 7)

- **TSCA new (21st Century Act) (Substances not listed)**
- **Proposition 65**

· <b>Chemicals known to cause cancer:</b>
---

Substance is not listed.
--------------------------

· <b>Chemicals known to cause reproductive toxicity for females:</b>
--

Substance is not listed.
--------------------------

· <b>Chemicals known to cause reproductive toxicity for males:</b>
--

Substance is not listed.
--------------------------

· <b>Chemicals known to cause developmental toxicity:</b>
---

Substance is listed.
----------------------

- **Carcinogenic categories**

· <b>EPA (Environmental Protection Agency)</b>
--

Substance is not listed.
--------------------------

· <b>TLV (Threshold Limit Value established by ACGIH)</b>
---

Substance is not listed.
--------------------------

· <b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b>
---

Substance is not listed.
--------------------------

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

- **Hazard pictograms**



GHS06    GHS08

- **Signal word** *Danger*

- **Hazard-determining components of labeling:**

*thalidomide*

- **Hazard statements**

*Toxic if swallowed.*

*May damage fertility or the unborn child.*

- **Precautionary statements**

*Obtain special instructions before use.*

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

*Wash thoroughly after handling.*

*Do not eat, drink or smoke when using this product.*

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

*If swallowed: Immediately call a poison center/doctor.*

*IF exposed or concerned: Get medical advice/attention.*

*Specific treatment (see on this label).*

*Rinse mouth.*

*Store locked up.*

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

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

US

(Contd. on page 9)



# Safety Data Sheet

acc. to OSHA HCS

Printing date 12/14/2017

Reviewed on 12/14/2017

Trade name: *Thalidomide*

(Contd. of page 8)

## 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

- **Department issuing SDS:** Quality Control Dept.
- **Date of preparation / last revision** 12/14/2017 / -

- **Abbreviations and acronyms:**

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*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)*

*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*

*Acute Tox. 3: Acute toxicity – Category 3*

*Repr. 1A: Reproductive toxicity – Category 1A*