

Revision date: 06-Feb-2013

Version: 3.1

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# 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

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# Material Name: Lipitor® (Atorvastatin Calcium) Tablets

Trade Name:	Lipitor®
Chemical Family:	Mixture
Intended Use:	Pharmaceutical product used as Lipid regulating agent.

# 2. HAZARDS IDENTIFICATION

Appearance:	White film-coated tablets
Statement of Hazard:	Non-hazardous in accordance with international standards for workplace safety.
Additional Hazard Information: Short Term: Long Term: Known Clinical Effects:	May cause eye irritation (based on components). Repeat-dose studies in animals have shown a potential to cause adverse effects on liver. Adverse effects associated with therapeutic use of atorvastatin include constipation, flatulence, upset stomach, and abdominal pain. Clinical use of this drug has caused changes in liver function, muscle pain, weakness.
EU Indication of danger:	Not classified
Australian Hazard Classification (NOHSC):	Non-Hazardous Substance. Non-Dangerous Goods.
Note:	This document has been prepared in accordance with standards for workplace safety, which require the inclusion of all known hazards of the product or its ingredients regardless of the potential risk. The precautionary statements and warnings included may not apply in all cases. Your needs may vary depending upon the potential for exposure in your workplace.

# **3. COMPOSITION/INFORMATION ON INGREDIENTS**

### Hazardous EU EINECS/ELINCS List EU Classification Ingredient CAS Number Atorvastatin calcium 134523-03-8 Not Listed R52/53 Calcium carbonate 471-34-1 207-439-9 Not Listed Microcrystalline cellulose 9004-34-6 232-674-9 Not Listed Magnesium stearate 557-04-0 209-150-3 Not Listed

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Ingredient	CAS Number	EU EINECS/ELINCS List	EU Classification	%
Simethicone emulsion	67762-90-7	Not Listed	Not Listed	*
Lactose NF, monohydrate	64044-51-5	Not Listed	Not Listed	*
Croscarmellose sodium	74811-65-7	Not Listed	Not Listed	*
Hydroxypropyl cellulose	9004-64-2	Not Listed	Not Listed	*
Opadry white	NOT ASSIGNED	Not Listed	Not Listed	*
Polysorbate 80	9005-65-6	Not Listed	Not Listed	*

# Additional Information:

\* Proprietary Ingredient(s) indicated as hazardous have been assessed under standards for workplace safety.

### For the full text of the R phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES	
Eye Contact:	Immediately flush eyes with water for at least 15 minutes. If irritation occurs or persists, get medical attention.
Skin Contact:	Remove contaminated clothing and shoes. Wash skin with soap and water. If irritation occurs or persists, get medical attention.
Ingestion:	Get medical attention. Do not induce vomiting unless directed by medical personnel. Never give anything by mouth to an unconscious person.
Inhalation:	Remove to fresh air. If not breathing, give artificial respiration. Get medical attention.
Symptoms and Effects of Exposure:	For information on potential signs and symptoms of exposure, See Section 2 - Hazards Identification and/or Section 11 - Toxicological Information.

# **5. FIRE FIGHTING MEASURES**

Extinguishing Media:	Use carbon dioxide, dry chemical, or water spray.
Hazardous Combustion Products:	Formation of toxic gases is possible during heating or fire.
Fire Fighting Procedures:	During all fire fighting activities, wear appropriate protective equipment, including self- contained breathing apparatus.
Fire / Explosion Hazards:	Fine particles (such as dust and mists) may fuel fires/explosions.

# 6. ACCIDENTAL RELEASE MEASURES

Health and Safety Precautions:	Personnel involved in clean-up should wear appropriate personal protective equipment (see Section 8). Minimize exposure.	
Measures for Cleaning / Collecting:	Contain the source of spill if it is safe to do so. Collect spilled material by a method that controls dust generation. A damp cloth or a filtered vacuum should be used to clean spills of dry solids. Clean spill area thoroughly.	
Measures for Environmental Protections:	Place waste in an appropriately labeled, sealed container for disposal. Care should be taken to avoid environmental release.	
Additional Consideration for Large Spills:	Non-essential personnel should be evacuated from affected area. Report emergency situations immediately. Clean up operations should only be undertaken by trained personnel.	

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# 7. HANDLING AND STORAGE

General Handling:	Minimize dust generation and accumulation. If tablets or capsules are crushed and/or broken, avoid breathing dust and avoid contact with eyes, skin, and clothing. When handling, use appropriate personal protective equipment (see Section 8). Wash hands and any exposed skin after removal of PPE. Releases to the environment should be avoided. Review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure or environmental releases. Potential points of process emissions of this material to the atmosphere should be controlled with dust collectors, HEPA filtration systems or other equivalent controls.
Storage Conditions:	Store as directed by product packaging.

# 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Refer to available public information for specific member state Occupational Exposure Limits.

Atorvastatin calcium		
Pfizer OEL TWA-8 Hr:	50	Ͻ μg/m <sup>3</sup>
Calcium carbonate		
Australia TWA		D mg/m <sup>3</sup>
Bulgaria OEL - TWA		0.0 mg/m <sup>3</sup>
France OEL - TWA		D mg/m <sup>3</sup>
Latvia OEL - TWA		mg/m <sup>3</sup>
Poland OEL - TWA		D mg/m <sup>3</sup>
Portugal OEL - TWA	10	D mg/m <sup>3</sup>
Microcrystalline cellulose		
ACGIH Threshold Limit Value	(TWA) 10	D mg/m <sup>3</sup>
Australia TWA	10	D mg/m <sup>3</sup>
Belgium OEL - TWA	10	D mg/m <sup>3</sup>
Estonia OEL - TWA	10	D mg/m <sup>3</sup>
France OEL - TWA	10	D mg/m <sup>3</sup>
Ireland OEL - TWAs	10	D mg/m <sup>3</sup>
		mg/m <sup>3</sup>
Latvia OEL - TWA	2	mg/m <sup>3</sup>
OSHA - Final PELS - TWAs:		5 mg/m <sup>3</sup>
Portugal OEL - TWA		D mg/m <sup>3</sup>
Spain OEL - TWA		D mg/m <sup>3</sup>
Magnesium stearate		
ACGIH Threshold Limit Value	( <b>T</b> )((A)) 1(	D mg/m <sup>3</sup>
Lithuania OEL - TWA	. ,	mg/m <sup>3</sup>
Sweden OEL - TWA		mg/m <sup>3</sup>
Sweden OEL - TWAS	5	mg/m <sup>-</sup>
Analytical Method:	Analytical method available f	or Atorvastatin. Contact Pfizer Inc for further information.
Engineering Controls:		be used as the primary means to control exposures. General
		unless the process generates dust, mist or fumes. Keep airborne
		ne exposure limits listed above in this section.
<b>Environmental Exposure Controls:</b> Refer to specific Member State legislation for requirements under Community en legislation.		are registration for requirements under Community environmental

**Personal Protective Equipment:** 

Refer to applicable national standards and regulations in the selection and use of personal protective equipment (PPE).

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# 8. EXPOSURE CONTROLS / PERSONAL PROTECTION Hands: Impervious gloves are recommended if skin contact with drug product is possible and for bulk processing operations. Eyes: Wear safety glasses or goggles if eye contact is possible. Skin: Impervious protective clothing is recommended if skin contact with drug product is possible and for bulk processing operations. Respiratory protection: If the applicable Occupational Exposure Limit (OEL) is exceeded, wear an appropriate respirator with a protection factor sufficient to control exposures to below the OEL.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:TabletColor:WhiteMolecular Formula:MixtureMolecular Weight:Mixture	Physical State:	Tablet	Color:	White
	Molecular Formula:	Mixture	Molecular Weight:	Mixture

**Polymerization:** 

Will not occur

# **10. STABILITY AND REACTIVITY**

Chemical Stability:	Stable under normal conditions of use.	
Conditions to Avoid:	Fine particles (such as dust and mists) may fuel fires/explosions.	
Incompatible Materials:	As a precautionary measure, keep away from strong oxidizers	

# **11. TOXICOLOGICAL INFORMATION**

**General Information:** 

The information included in this section describes the potential hazards of the individual ingredients.

### Acute Toxicity: (Species, Route, End Point, Dose)

### Microcrystalline cellulose

Rat Oral LD50 > 5000 mg/kg Rabbit Dermal LD50 > 2000 mg/kg

### Calcium carbonate

Rat Oral LD50 6450 mg/kg

### Magnesium stearate

Rat Oral LD50 > 2000 mg/kg Rat Inhalation LC50 > 2000 mg/m<sup>3</sup>

### Polysorbate 80 Rat Oral LD50 25 g/kg

### Atorvastatin calcium

 Rat/Mouse
 Oral
 LD50
 > 5000 mg/kg

 Rabbit
 Dermal
 LD50
 > 2000 mg/kg

 Acute Toxicity Comments:
 A greater than symbol (>) indicates that the toxicity endpoint being tested was not achievable at the highest dose used in the test.

### Irritation / Sensitization: (Study Type, Species, Severity)

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# **11. TOXICOLOGICAL INFORMATION**

### **Microcrystalline cellulose**

Skin Irritation Rabbit Non-irritating Eye Irritation Rabbit Non-irritating

### Atorvastatin calcium

Skin Sensitization - Beuhler Guinea Pig Negative Skin Irritation Rabbit Non-irritating Eye Irritation Rabbit Mild

### Repeated Dose Toxicity: (Duration, Species, Route, Dose, End Point, Target Organ)

### Atorvastatin calcium

104 Week(s) Dog Oral 10 mg/kg/day LOAEL Liver 13 Week(s) Oral 100 mg/kg/day LOAEL Mouse Liver 52 Week(s) Rat Oral 5 mg/kg/day NOAEL Liver Oral 5 (male); 20 (female) mg/kg/day 13 Week(s) Rat NOAEL Liver

### Reproduction & Developmental Toxicity: (Study Type, Species, Route, Dose, End Point, Effect(s))

### Atorvastatin calcium

**Reproductive & Fertility** Oral 20 mg/kg/day Rat NOAEL Negative Fertility and Embryonic Development Rat Oral 100 mg/kg/day NOAEL Negative Embryo / Fetal Development Rat Oral 100 mg/kg/day NOAEL Not Teratogenic, Maternal Toxicity Embryo / Fetal Development Rabbit Oral 10 mg/kg/day NOAEL Not Teratogenic, Maternal Toxicity, Fetotoxicity Peri-/Postnatal Development Rat Oral 20 mg/kg/day NOAEL Fetotoxicity

### Genetic Toxicity: (Study Type, Cell Type/Organism, Result)

### Atorvastatin calcium

 In Vitro Bacterial Mutagenicity (Ames)
 Salmonella , E. coli
 Negative

 In Vivo Micronucleus
 Mouse Bone Marrow
 Negative

 Mutagenicity
 No evidence of mutagenic or clastogenic activity in in vitro or in vivo tests.

### Carcinogenicity: (Duration, Species, Route, Dose, End Point, Effect(s))

### Atorvastatin calcium

104 Week(s)MouseOral200 mg/kg/dayNOAELNot carcinogenic104 Week(s)RatOral100 mg/kg/dayNOAELNot carcinogenic

**Carcinogen Status:** None of the components of this formulation are listed as a carcinogen by IARC, NTP or OSHA.

12. ECOLOGICAL INFORMATION		
Environmental Overview:	In the environment, the active ingredient in this formulation is expected to remain in water or migrate through the soil. Not readily biodegradable. May have harmful effects on the aquatic environment. May persist in the aquatic environment. Releases to the environment should be avoided.	
Mobility, Persistence and Degradability:	<10% biodegraded in 28 days (atorvastatin calcium)	

Aquatic Toxicity: (Species, Method, End Point, Duration, Result)

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# **12. ECOLOGICAL INFORMATION**

### Atorvastatin calcium

Daphnia magna (Water Flea) EC50 48 Hours 200 mg/L Oncorhynchus mykiss (Rainbow Trout) OECD LC50 96 Hours > 92 mg/L Pseudokirchneriella subcapitata (Green Alga) OECD EbC50 72 Hours 75 mg/L 0.14 mg/L Daphnia magna (Water Flea) OECD NOEC 21 Days Pimephales promelas (Fathead Minnow) OECD NOEC 32 Days 0.45 mg/L **Aquatic Toxicity Comments:** The (21) day (NOEC) study above is a reproductive/survival study. The 32 day study above is an Early Life-Stage Toxicity test. A greater than symbol (>) indicates that aquatic toxicity was not observed at the maximum dose tested.

### Bacterial Inhibition: (Inoculum, Method, End Point, Result)

### Atorvastatin calcium

Aspergillus niger (Fungus)MIC> 1000mg/LTrichoderma viride (Fungus)MIC> 1000mg/LClostridium perfingens (Bacterium)MIC100mg/LActivated sludgeOECDEC50> 1000mg/L

# **13. DISPOSAL CONSIDERATIONS**

### Waste Treatment Methods:

Dispose of waste in accordance with all applicable laws and regulations. Member State specific and Community specific provisions must be considered. Considering the relevant known environmental and human health hazards of the material, review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental releases. This may include destructive techniques for waste and wastewater.

# **14. TRANSPORT INFORMATION**

The following refers to all modes of transportation unless specified below.

Not regulated for transport under USDOT, EUADR, IATA, or IMDG regulations.

# **15. REGULATORY INFORMATION**

EU Indication of danger: Not classified

### OSHA Label:

Non-hazardous in accordance with international standards for workplace safety.

### Canada - WHMIS: Classifications

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15. REGULATORY INFORMATION	
WHMIS hazard class:	
None required	
	ard criteria of the CPR and the MSDS contains all of the information
required by the CPR.	
Simethicone emulsion	
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
	1 IOOM
Lactose NF, monohydrate	
Australia (AICS):	Present
Calcium carbonate	
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	207-439-9
Croscarmellose sodium	
Australia (AICS):	Present
Hydroxypropyl cellulose	
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
	1 IOOM
Polysorbate 80	
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
Microcrystalline cellulose	
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	232-674-9
Magnesium stearate	
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	209-150-3

# **16. OTHER INFORMATION**

# Text of R phrases mentioned in Section 3

R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Data Sources:	Pfizer proprietary drug development information. Publicly available toxicity information.
Reasons for Revision:	Updated Section 12 - Ecological Information.
Prepared by:	Product Stewardship Hazard Communication Pfizer Global Environment, Health, and Safety Operations

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Pfizer Inc believes that the information contained in this Material Safety Data Sheet is accurate, and while it is provided in good faith, it is without warranty of any kind, expressed or implied. If data for a hazard are not included in this document there is no known information at this time.

End of Safety Data Sheet