



MATERIAL SAFETY DATA SHEET

Revision date: 05-Feb-2013

Version: 2.6

Page 1 of 8

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

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International CHEMTREC (24 hours): +1-703-527-3887

Material Name: Procardia® (Nifedipine) soft gelatin capsules

Trade Name: Procardia
Chemical Family: Mixture
Intended Use: Pharmaceutical product for the treatment of high blood pressure (hypertension), angina

2. HAZARDS IDENTIFICATION

Appearance: Soft gelatin capsules , 10 mg: Orange; 20 mg: light brown

Statement of Hazard: Non-hazardous in accordance with international standards for workplace safety.

Additional Hazard Information:

Short Term: Antihypertensive drug: has blood pressure-lowering properties
May cause eye and skin irritation. May be harmful if swallowed. (based on components).
Individuals sensitive to this chemical or other materials in its chemical class may develop allergic reactions. Exposure to sunlight following contact may result in skin reactions.

Known Clinical Effects: Ingestion of this material may cause effects similar to those seen in clinical use including hypotension (low blood pressure), dizziness, headache and drowsiness.

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

Ingredient	CAS Number	EU EINECS/ELINCS List	EU Classification	%
Nifedipine	21829-25-4	244-598-3	Xn;R22	2.6
Glycerin, USP	56-81-5	200-289-5	Not Listed	*

MATERIAL SAFETY DATA SHEET

Material Name: Procardia® (Nifedipine) soft gelatin capsules
Revision date: 05-Feb-2013

Page 2 of 8
Version: 2.6

Ingredient	CAS Number	EU EINECS/ELINCS List	EU Classification	%
Polyethylene glycol 400	25322-68-3	Not Listed	Not Listed	*
Peppermint oil	8006-90-4	Not Listed	Not Listed	*
Sodium saccharin USP	128-44-9	204-886-1	Not Listed	**

Additional Information:

* Proprietary

**Sodium saccharin is contained in solution for 10 mg capsules only.

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:	Flush with water while holding eyelids open for at least 15 minutes. Seek medical attention immediately.
Skin Contact:	Remove contaminated clothing. Flush area with large amounts of water. Use soap. Seek medical attention.
Ingestion:	Never give anything by mouth to an unconscious person. Wash out mouth with water. Do not induce vomiting unless directed by medical personnel. Seek medical attention immediately.
Inhalation:	Remove to fresh air and keep patient at rest. Seek medical attention immediately.
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:	Not applicable

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.

MATERIAL SAFETY DATA SHEET

Material Name: Procardia® (Nifedipine) soft gelatin capsules
Revision date: 05-Feb-2013

Page 3 of 8
Version: 2.6

7. HANDLING AND STORAGE

General Handling: 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 thoroughly after handling. 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.

Nifedipine

Pfizer OEL TWA-8 Hr: 300µg/m³

Polyethylene glycol 400

Austria OEL - MAKs	1000 mg/m ³
Germany - TRGS 900 - TWAs	1000 mg/m ³
Germany (DFG) - MAK	1000 mg/m ³ average molecular weight 200-600
Slovakia OEL - TWA	1000 mg/m ³
Slovenia OEL - TWA	1000 mg/m ³

Glycerin, USP

ACGIH Threshold Limit Value (TWA)	10 mg/m ³
ACGIH OELs - Notice of Intended Changes	Listed
Australia TWA	10 mg/m ³
Belgium OEL - TWA	10 mg/m ³
Czech Republic OEL - TWA	10 mg/m ³
Estonia OEL - TWA	10 mg/m ³
Finland OEL - TWA	20 mg/m ³
France OEL - TWA	10 mg/m ³
Germany (DFG) - MAK	50 mg/m ³
Greece OEL - TWA	10 mg/m ³
Ireland OEL - TWAs	10 mg/m ³
OSHA - Final PELS - TWAs:	15 mg/m ³
Poland OEL - TWA	10 mg/m ³
Portugal OEL - TWA	10 mg/m ³
Spain OEL - TWA	10 mg/m ³

Analytical Method:

Engineering Controls:

Analytical method available for Nifedipine. Contact Pfizer Inc for further information.

Engineering controls should be used as the primary means to control exposures. General room ventilation is adequate unless the process generates dust, mist or fumes. Keep airborne contamination levels below the exposure limits listed above in this section.

Environmental Exposure Controls:

Refer to specific Member State legislation for requirements under Community environmental legislation.

Personal Protective Equipment:

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

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.

MATERIAL SAFETY DATA SHEET

Material Name: Procardia® (Nifedipine) soft gelatin capsules
Revision date: 05-Feb-2013

Page 4 of 8
Version: 2.6

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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:	Soft gelatin capsule	Color:	10 mg: Orange 20 mg: Light brown
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)

Glycerin, USP

Mouse Oral LD50 4090 mg/kg
Rat Oral LD50 12.6 g/kg
Rabbit Dermal LD50 > 10 g/kg
Rat Inhalation LC50 1hr > 570 mg/m³
Rat Dermal LD 50 >21.9 g/kg

Peppermint oil

Rat Oral LD 50 2426 mg/kg
Mouse Oral LD 50 2490 mg/kg

Sodium saccharin USP

Mouse Oral LD50 17.5 g/kg
Rat Oral LD50 14.2 - 17 g/kg

Nifedipine

Mouse Oral LD50 454 mg/kg
Rat Oral LD50 1022 mg/kg
Mouse IV LD50 4.2 mg/kg
Rat IV LD50 15.5 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.

MATERIAL SAFETY DATA SHEET

Material Name: Procardia® (Nifedipine) soft gelatin capsules
Revision date: 05-Feb-2013

Page 5 of 8
Version: 2.6

11. TOXICOLOGICAL INFORMATION

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

Glycerin, USP

Eye Irritation Rabbit Mild

Polyethylene glycol 400

Eye Irritation Rabbit Mild

Skin Irritation Rabbit Mild

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

Nifedipine

13 Week(s)	Rat	Oral 100 mg/kg/day	NOAEL	No effects at maximum dose
13 Week(s)	Dog	Oral 50 mg/kg/day	NOAEL	No effects at maximum dose
4 Week(s)	Dog	Oral 125 mg/kg/day	NOAEL	No effects at maximum dose
4 Week(s)	Dog	Intravenous 0.6 mg/kg/day	NOAEL	No effects at maximum dose
1 Year(s)	Dog	Oral 100 mg/kg/day	NOAEL	No effects at maximum dose

Reproduction & Development Toxicity: (Duration, Species, Route, Dose, End Point, Effect(s))

Nifedipine

Reproductive & Fertility	Rat	Oral 3 mg/kg/day	NOAEL	Reproductive toxicity, Embryotoxicity, Postnatal mortality, Maternal toxicity
Peri-/Postnatal Development	Rat	Oral 4 mg/kg/day	NOAEL	Reproductive toxicity, Fetotoxicity, Maternal Toxicity
Peri-/Postnatal Development	Rat	Oral 3 mg/kg/day	NOAEL	Embryotoxicity
Embryo / Fetal Development	Rat	Oral 10 mg/kg/day	NOAEL	Maternal Toxicity, Fetotoxicity, Developmental toxicity
Embryo / Fetal Development	Rabbit	Oral 10 mg/kg/day	LOAEL	Developmental toxicity

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

Nifedipine

In Vivo Dominant Lethal Assay	Mouse	Negative
In Vivo Cytogenetics	Hamster	Negative
In Vivo Micronucleus	Mouse	Negative
Bacterial Mutagenicity (Ames)	Salmonella	Negative

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

Nifedipine

2 Year(s) Rat Oral 156-210 mg/kg/day NOAEL Not carcinogenic

Carcinogen Status:

None of the components of this formulation are listed as a carcinogen by IARC, NTP or OSHA.
See below

Sodium saccharin USP

IARC:

Group 3 (Not Classifiable)

MATERIAL SAFETY DATA SHEET

Material Name: Procardia® (Nifedipine) soft gelatin capsules
Revision date: 05-Feb-2013

Page 6 of 8
Version: 2.6

12. ECOLOGICAL INFORMATION

Environmental Overview: The environmental characteristics of this mixture have not been fully evaluated. Releases to the environment should be avoided.

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

Glycerin, USP

<i>Oncorhynchus mykiss</i> (Rainbow Trout)	LD50	96 Hours	50 mg/L
<i>Daphnia magna</i> (Water Flea)	EC50	24 Hours	>500 mg/L

Nifedipine

<i>Brachydanio rerio</i> (Zebra fish)	LC50	96 Hours	> 5.77 mg/L
<i>Daphnia magna</i> (Water Flea)	EC50	48 Hours	> 3.88 mg/L

Aquatic Toxicity Comments: A greater than symbol (>) indicates that aquatic toxicity was not observed at the maximum dose tested.

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

Nifedipine

Activated sludge EC50 0.5 Hours > 10000 mg/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.

MATERIAL SAFETY DATA SHEET

Material Name: Procardia® (Nifedipine) soft gelatin capsules
Revision date: 05-Feb-2013

Page 7 of 8
Version: 2.6

15. REGULATORY INFORMATION

Canada - WHMIS: Classifications

WHMIS hazard class:

None required

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

Nifedipine

California Proposition 65

developmental toxicity initial date 1/29/99
female reproductive toxicity 1/29/99
male reproductive toxicity initial date 1/29/99

Australia (AICS):

Standard for the Uniform Scheduling for Drugs and Poisons:

EU EINECS/ELINCS List

Present

Schedule 4

244-598-3

Polyethylene glycol 400

Inventory - United States TSCA - Sect. 8(b)

Present

Australia (AICS):

Standard for the Uniform Scheduling for Drugs and Poisons:

Present

Schedule 3

Peppermint oil

Inventory - United States TSCA - Sect. 8(b)

Present

Australia (AICS):

Present

Sodium saccharin USP

Inventory - United States TSCA - Sect. 8(b)

Present

Australia (AICS):

EU EINECS/ELINCS List

Present

204-886-1

Glycerin, USP

Inventory - United States TSCA - Sect. 8(b)

Present

Australia (AICS):

REACH - Annex V - Exemptions from the obligations of Register:

Present

Present if not chemically modified, except they meet the criteria for classification as dangerous according to Directive 67/548/EEC, except those only classified as flammable [R10], as a skin irritant [R38] or as an eye irritant [R36], except they are persistent, bioaccumulative, and toxic or very persistent and very bioaccumulative in accordance with the criteria set out in Annex XIII, except they were identified in accordance with Article 59[1] at least two years previously as substances giving rise to an equivalent level of concern

200-289-5

EU EINECS/ELINCS List

16. OTHER INFORMATION

Text of R phrases mentioned in Section 3

R22 - Harmful if swallowed.

Data Sources:

Safety data sheets for individual ingredients. Pfizer proprietary drug development information.

MATERIAL SAFETY DATA SHEET

Material Name: Procardia® (Nifedipine) soft gelatin capsules
Revision date: 05-Feb-2013

Page 8 of 8
Version: 2.6

Prepared by: Product Stewardship Hazard Communication
Pfizer Global Environment, Health, and Safety Operations

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End of Safety Data Sheet