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# Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identifier

Product Name Regadenoson Injection (Hospira, Inc.)

Product Code(s) PZ03515
Trade Name: Not applicable
Chemical Family: Not determined

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Pharmaceutical product

#### 1.3. Details of the supplier of the safety data sheet

Hospira, A Pfizer Company 275 North Field Drive Lake Forest, Illinois 60045

1-800-879-3477

Pfizer Ireland Pharmaceuticals

OSG Building

Ringaskiddy, Co. Cork.

Ireland

+353 21 4378701

E-mail address pfizer-MSDS@pfizer.com

#### 1.4. Emergency telephone number

Emergency Telephone Chemtrec 1-800-424-9300 International Chemtrec (24 hours):+1-703-527-3887

## Section 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

GHS - Classification: Not classified as hazardous

2.2. Label elements

Signal word Not Classified

**Hazard statements** Not classified in accordance with international standards for workplace safety.

2.3. Other hazards

Other hazards An Occupational Exposure Value has been established for one or more of the ingredients

(see Section 8).

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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.

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## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

**Substances** 

Not applicable

#### 3.2 Mixtures

Hazardous

- 10E01 0 0 0 0							
Chemical name	Weight-%	REACH Registration Number	EC No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Regadenoson 313348-27-5	0.008		Not Listed	Repr. 2 (H361d)	Not Listed	No data available	No data available
NonHazardous							
Chemical name	Weight-%	REACH Registration Number	EC No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Water 7732-18-5	*		231-791-2	No data available	Not Listed	No data available	No data available
Propylene glycol 57-55-6	*		200-338-0	No data available	Not Listed	No data available	No data available
Sodium Phosphate Monobasic, Monohydrate 10049-21-5	*		Not Listed	No data available	Not Listed	No data available	No data available
Sodium phosphate, dibasic 7558-79-4	*		231-448-7	No data available	Not Listed	No data available	No data available
Edetate disodium 139-33-3	*		205-358-3	No data available	Not Listed	No data available	No data available

#### Full text of H- and EUH-phrases: see section 16

**Acute Toxicity Estimate** 

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapor - mg/L	
Water 7732-18-5	89838.9	No data available	No data available	No data available	No data available
Propylene glycol 57-55-6	20000	20800	No data available	No data available	No data available

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Chemical name	Oral LD50	Dermal LD50		Inhalation LC50 - 4 hour - vapor - mg/L	
Sodium phosphate, dibasic 7558-79-4	17000	No data available	No data available	No data available	No data available
Edetate disodium 139-33-3	2000	No data available	No data available	No data available	No data available

Additional information \* Proprietary

Non-hazardous ingredients provided for completeness. Ingredient(s) indicated as

hazardous have been assessed under standards for workplace safety. In accordance with 29 CFR 1910.1200, the exact percentage composition of this mixture has been withheld as

a trade secret.

## Section 4: FIRST AID MEASURES

#### 4.1. Description of first aid measures

**Inhalation** Move to fresh air. If discomfort occurs, get medical attention.

Eye contact Flush eye(s) immediately with plenty of water. If irritation occurs or persists, get medical

attention.

**Skin contact** Rinse with plenty of water. If skin irritation persists, call a physician.

**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.

#### 4.2. Most important symptoms and effects, both acute and delayed

Most important symptoms and

effects

For information on potential signs and symptoms of exposure, See Section 2 - Hazards

Identification and/or Section 11 - Toxicological Information.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians None.

## Section 5: FIRE-FIGHTING MEASURES

#### 5.1. Extinguishing media

Suitable Extinguishing Media Dry chemical, CO2, alcohol-resistant foam or water spray.

## 5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the

chemical

Fine particles (such as mists) may fuel fires/explosions.

**Hazardous combustion products** Formation of toxic gases is possible during heating or fire.

5.3. Advice for firefighters

Special protective equipment for

fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout

gear. Use personal protection equipment.

## Section 6: ACCIDENTAL RELEASE MEASURES

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#### 6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Personnel involved in clean-up should wear appropriate personal protective equipment (see

Section 8). Minimize exposure.

**For emergency responders** Use personal protection recommended in Section 8.

6.2. Environmental precautions

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**Environmental precautions** Place waste in an appropriately labeled, sealed container for disposal. Care should be

taken to avoid environmental release.

#### 6.3. Methods and material for containment and cleaning up

**Methods for containment** Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Contain the source of spill if it is safe to do so. Collect spill with absorbent material. Clean

spill area thoroughly.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

**Reference to other sections**See section 8 for more information. See section 13 for more information.

#### Section 7: HANDLING AND STORAGE

#### 7.1. Precautions for safe handling

#### Advice on safe handling

Avoid breathing vapor or mist. 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.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

#### 7.2. Conditions for safe storage, including any incompatibilities

**Storage Conditions** Store as directed by product packaging.

7.3. Specific end use(s)

Specific use(s) Pharmaceutical drug product.

#### Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

## 8.1. Control parameters

#### **Exposure Limits**

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

Regadenoson

Pfizer OEL TWA-8 Hr: 1 µg/m<sup>3</sup>

Propylene glycol

Ireland 10 mg/m³ 150 ppm

470 mg/m<sup>3</sup> STEL: 1410 mg/m<sup>3</sup>

STEL: 30 mg/m<sup>3</sup> STEL: 450 ppm 7 mg/m<sup>3</sup>

Latvia 7 mg/m³
Poland 100 mg/m³

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Russia MAC: 7 mg/m³ United Kingdom TWA: 150 ppm

TWA: 474 mg/m<sup>3</sup> TWA: 10 mg/m<sup>3</sup> STEL: 450 ppm STEL: 1422 mg/m<sup>3</sup> STEL: 30 mg/m<sup>3</sup>

Sodium phosphate, dibasic

Russia MAC: 10 mg/m<sup>3</sup>

**Edetate disodium** 

Russia MAC: 2 mg/m<sup>3</sup>

**Pfizer Occupational Exposure Band** 

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(OEB) Statement: The purpose of the Occupational Exposure Band (OEB) classification system is to separate

substances into different Hazard categories when the available data are sufficient to do so, but inadequate to establish an Occupational Exposure Limit (OEL). The OEB given is based upon an analysis of all currently available data; as such, this value may be subject to

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revision when new information becomes available.

Sodium phosphate, dibasic

Pfizer Occupational Exposure

Band (OEB):

OEB 1 (control exposure to the range of 1000ug/m³ to 3000ug/m³)

8.2. Exposure controls

**Engineering controls** 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** No information available.

Personal protective equipment Contact your safety and health professional or safety equipment supplier for assistance in

selecting the correct protective clothing/equipment based on an assessment of the workplace conditions, other chemicals used or present in the workplace and specific operational processes. Refer to applicable national standards and regulations in the

selection and use of personal protective equipment (PPE).

**Eye/face protection** Wear safety glasses or goggles if eye contact is possible. (Eye protection must meet the

standards in accordance with EN166, ANSI Z87.1 or international equivalent.).

Hand protection Impervious disposable gloves (e.g. Nitrile, etc.) (double recommended) if skin contact with

drug product is possible and for bulk processing operations. (Protective gloves must meet

the standards in accordance with EN374, ASTM F1001 or international equivalent.).

Skin and body protection Impervious disposable protective clothing is recommended if skin contact with drug product

is possible and for bulk processing operations. (Protective clothing must meet the standards in accordance with EN13982, ANSI 103 or international equivalent.).

exceeded, wear an appropriate respirator with a protection factor sufficient to control exposures to below the OEL (e.g. particulate respirator with a full mask, P3 filter).

(Respirators must meet the standards in accordance with EN136, EN143, ASTM F2704-10

or international equivalent.).

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

#### Section 9: PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1. Information on basic physical and chemical properties

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Physical state Liquid

Color Clear, colorless

Odor No information available.

Odor threshold No information available

Molecular formula Mixture
Molecular weight Mixture

 Property
 Values

 pH
 6.3-7.7

Melting point / freezing point No data available

Boiling point / boiling range

Flash point

Evaporation rate

Flammability (solid, gas)

No information available
No data available
No data available

Flammability Limit in Air
Upper flammability limit:

No data available

Lower flammability limit: No data available

Vapor pressureNo data availableVapor densityNo data available

Relative density 1.0
Water solubility Soluble

Solubility(ies)

Partition coefficient

Autoignition temperature

Decomposition temperature

Kinematic viscosity

No data available

Particle characteristics
Particle Size
Particle Size Distribution
No information available
Explosive properties
No information available

Partition Coefficient: (Method, pH, Endpoint, Value)

Regadenoson

Predicted 7.4 Log D -1.828

9.2. Other information

No information available

9.2.1. Information with regard to physical hazard classes

Oxidizing properties None

9.2.2. Other safety characteristics

No information available

## Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

**Reactivity** No data available.

10.2. Chemical stability

**Stability** Stable under normal conditions.

**Explosion data** 

Sensitivity to Mechanical Impact No data available. Sensitivity to Static Discharge No data available.

10.3. Possibility of hazardous reactions

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Possibility of hazardous reactions

No information available.

10.4. Conditions to avoid

**Conditions to avoid** Fine particles (such as mists) may fuel fires/explosions.

10.5. Incompatible materials

Incompatible materials As a precautionary measure, keep away from strong oxidizers.

#### 10.6. Hazardous decomposition products

Hazardous decomposition products None known.

## Section 11: TOXICOLOGICAL INFORMATION

#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

**General Information:** The information included in this section describes the potential hazards of the individual

ingredients

**Known Clinical Effects:** Adverse effects associated with therapeutic use include facial flushing, shortness of breath

(dyspnea), headache, lightheadedness, increased heart rate (tachycardia), dizziness,

irregular heartbeat (cardiac arrhythmia), nausea.

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

Propylene glycol

Rat Oral LD 50 22,000 mg/kg Mouse Oral LD 50 24,900 mg/kg Rabbit Dermal LD 50 20,800 mg/kg

**Edetate disodium** 

Rat Oral LD50 2000-2200 mg/kg

Regadenoson

Rat IV Minimum Lethal Dose > 1.4 mg/kg

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Water	> 90 mL/kg (Rat)	-	-
Propylene glycol	= 20 g/kg (Rat)	= 20800 mg/kg ( Rabbit )	-
Sodium phosphate, dibasic	= 17 g/kg (Rat)	-	-
Edetate disodium	= 2 g/kg (Rat)	-	-

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)

Propylene glycol

Skin irritation Rabbit Mild Eye irritation Rabbit Mild

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

7 Day(s) Rat Intravenous 0.02 mg/kg/day NOAEL Skin, Blood 7 Day(s) Dog Intravenous 0.002 mg/kg/week NOAEL Skin

28 Day(s) Rat Intravenous 0.02 mg/kg/day NOAEL Decreased body wieght

28 Day(s) Dog Intravenous 0.02 mg/kg/day NOAEL Heart, Skin

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

Prenatal & Postnatal Development Rabbit No route specified 0.1 mg/kg/day NOEL Maternal toxicity, Fetotoxicity Prenatal & Postnatal Development Rat No route specified 0.1 mg/kg/day NOEL Maternal Toxicity, Fetotoxicity

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Embryo / Fetal Development Rabbit Intravenous 0.1 mg/kg/day LOAEL Maternal Toxicity Embryo / Fetal Development Rabbit Intravenous 0.1 mg/kg/day NOAEL Fetotoxicity Embryo / Fetal Development Rat Intravenous 0.1 mg/kg/day LOAEL Maternal Toxicity Embryo / Fetal Development Rat Intravenous 0.1 mg/kg/day NOAEL Fetotoxicity

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

Regadenoson

Bacterial Mutagenicity (Ames) Not specified Negative

In Vivo Micronucleus Mouse Negative

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Chromosome Aberration Chinese Hamster Ovary (CHO) cells Negative

Carcinogenicity None of the components of this formulation are listed as a carcinogen by IARC, NTP or

OSHA.

#### 11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

**Endocrine disrupting properties** No information available.

11.2.2. Other information

Other adverse effects No information available.

#### Section 12: ECOLOGICAL INFORMATION

**Environmental Overview:** Releases to the environment should be avoided. Environmental properties have not been

thoroughly investigated.

12.1. Toxicity

No information available

### 12.2. Persistence and degradability

Persistence and degradability No information available.

#### 12.3. Bioaccumulative potential

**Bioaccumulation** 

Partition Coefficient: (Method, pH, Endpoint, Value)

Regadenoson

Predicted 7.4 Log D -1.828

12.4. Mobility in soil

Mobility in soil No information available.

#### 12.5. Results of PBT and vPvB assessment

#### PBT and vPvB assessment

Chemical name	PBT and vPvB assessment
Propylene glycol	The substance is not PBT / vPvB PBT assessment does
	not apply
Sodium phosphate, dibasic	PBT assessment does not apply

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Edetate disodium The substance is not PBT / vPvB

#### 12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.

#### 12.7. Other adverse effects

No information available.

## Section 13: DISPOSAL CONSIDERATIONS

#### 13.1. 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 wastewater 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.

## **Section 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.

#### Section 15: REGULATORY INFORMATION

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

CERCLA/SARA Section 313 de minimus % Not Listed California Proposition 65 Not Listed TSCA Present EINECS 231-791-2 AICS Present

Propylene glycol

CERCLA/SARA Section 313 de minimus % Not Listed
California Proposition 65 Not Listed
TSCA Present
EINECS 200-338-0
AICS Present

Sodium Phosphate Monobasic, Monohydrate

CERCLA/SARA Section 313 de minimus % Not Listed
California Proposition 65 Not Listed
EINECS Not Listed
AICS Present

Sodium phosphate, dibasic

CERCLA/SARA Section 313 de minimus % Not Listed Hazardous Substances RQs 5000 lb California Proposition 65 Not Listed TSCA Present

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EINECS 231-448-7
AICS Present
Standard for Uniform Scheduling of Medicines and
Poisons (SUSMP) Schedule 6

Edetate disodium

CERCLA/SARA Section 313 de minimus % Not Listed California Proposition 65 Not Listed TSCA Present EINECS 205-358-3 AICS Present

Regadenoson

CERCLA/SARA Section 313 de minimus % Not Listed
California Proposition 65 Not Listed
EINECS Not Listed

#### **France**

Occupational Illnesses (R-463-3, France)

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Chemical name	French RG number	Title
Propylene glycol 57-55-6	RG 84	-

#### **European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

#### Authorizations and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

#### **Persistent Organic Pollutants**

Not applicable

#### Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

#### Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances **AICS** - Australian Inventory of Chemical Substances

#### 15.2. Chemical safety assessment

Chemical Safety Report No information available

## Section 16: OTHER INFORMATION

#### Key or legend to abbreviations and acronyms used in the safety data sheet

#### Full text of H-Statements referred to under section 3

Reproductive toxicity-Cat.2; H361d - Suspected of damaging the unborn child

**Data Sources:** Pfizer proprietary drug development information. Publicly available toxicity information.

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Reason for revision Updated Section 1 - Identification of the Substance/Preparation and the

Company/Undertaking. Updated Section 2 - Hazard Identification. Updated Section 3 - Composition / Information on Ingredients. Updated Section 11 - Toxicology Information. Updated Section 12 - Ecological Information. Updated Section 15 - Regulatory Information.

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Prepared By Pfizer Global Environment, Health, and Safety

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