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

#### 1.1. Product identifier

Product Name Bupivacaine Hydrochloride and Epinephrine Injection, USP (Hospira, Inc.)

Product Code(s) PZ03150

Trade Name: MARCAINE WITH EPINEPHRINE

Chemical Family: Not determined

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

Recommended Use Pharmaceutical product used as anesthetic agent

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

Hospira, A Pfizer Company
275 North Field Drive
Pfizer Ireland Pharmaceuticals
OSG Building

Lake Forest, Illinois 60045 Ringaskiddy, Co. Cork.

1-800-879-3477 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

Acute toxicity - Oral Category 4

#### **OSHA Classification**

Hazards not otherwise classified (HNOC)

Not applicable

Hazards classified under paragraph (d)(1)(ii) of 1910.1200

Not applicable

2.2. Label elements

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Signal word Warning

Hazard statements H302 - Harmful if swallowed

Precautionary Statements - EU (§28, P264 - Wash hands thoroughly after handling

1272/2008)

P270 - Do not eat, drink or smoke when using this product

P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel

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unwell

P330 - Rinse mouth

P501 - Dispose of contents/container in accordance with local, regional, national, and

international regulations as applicable

2.3. Other hazards

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

(see Section 8).

PBT & vPvB The product does not contain any substance(s) classified as PBT or vPvB.

**Endocrine Disruptor Information** This product does not contain any known or suspected endocrine disruptors.

**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.

### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Substances Not applicable

3.2 Mixtures

Hazardous

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Bupivacaine Hydrochloride (CAS #: 14252-80-3)	=0.75</td <td></td> <td>Not Listed</td> <td>Acute Tox. 2 (H300)</td> <td>Not classified</td> <td>No data available</td> <td>No data available</td>		Not Listed	Acute Tox. 2 (H300)	Not classified	No data available	No data available
Sodium metabisulfite USP	<0.1		231-673-0 (016-063-00-2)	Acute Tox. 4 (H302)	Not classified	No data available	No data available

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(CAS #: 7681-57-4)				Eye Dam. 1 (H318)			
Epinephrine bitartrate (CAS #: 51-42-3)	<0.1		200-097-1	Acute Tox. 2 (H300) Acute Tox. 2 (H310)	Not classified	No data available	No data available
Sodium hydroxide (CAS #: 1310-73-2)	**	-	215-185-5 (011-002-00-6)	Skin Corr.1A (H314)	Eye Irrit. 2 :: 0.5%<=C<2% Skin Corr. 1A :: C>=5% Skin Corr. 1B :: 2%<=C<5% Skin Irrit. 2 :: 0.5%<=C<2%	No data available	No data available
+ Hydrochloric Acid (CAS #: 7647-01-0)	**	-	231-595-7 (017-002-00-2) (017-002-01-X)		Eye Irrit. 2 :: 10%<=C<25% Skin Corr. 1B :: C>=25% Skin Irrit. 2 :: 10%<=C<25% STOT SE 3 :: C>=10%	No data available	No data available
NonHazardous							
Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Water (CAS #: 7732-18-5)	*	-	231-791-2	Not classified	Not classified	No data available	No data available
SODIUM CHLORIDÉ (CAS #: 7647-14-5)	*	-	231-598-3	Not classified	Not classified	No data available	No data available
Monothioglycerol (CAS #: 96-27-5)	*	-	202-495-0	Not classified	Not classified	No data available	No data available
Edetate calcium disodium (CAS #: 62-33-9)	*		200-529-9	Not classified	Not classified	No data available	No data available

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

Acute Toxicity Estimate

Chemical name	Oral LD50 mg/kg	Dermal LD50	Inhalation LC50 - 4	Inhalation LC50 - 4	Inhalation LC50 - 4
		mg/kg	hour - dust/mist - mg/L	hour - vapor - mg/L	hour - gas - ppm
Water 7732-18-5	89838.9	No data available	No data available	No data available	No data available
Bupivacaine Hydrochloride 14252-80-3	18	No data available	No data available	No data available	No data available
SODIUM CHLORIDE 7647-14-5	3550	10000	No data available	No data available	No data available
Sodium metabisulfite USP 7681-57-4	1310	2000	No data available	No data available	No data available

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Chemical name	Oral LD50 mg/kg		Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapor - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Sodium hydroxide 1310-73-2	325	1350	No data available	No data available	No data available
Monothioglycerol 96-27-5	No data available	673	No data available	No data available	No data available
Edetate calcium disodium 62-33-9	10000	No data available	1.9775	No data available	No data available
+ Hydrochloric Acid 7647-01-0	238	5010	No data available	No data available	563.3022

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59).

#### **Additional information**

- + Substance with a Union workplace exposure limit
- \* Proprietary
- \*\* to adjust pH

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 Remove to fresh air. Seek immediate medical attention/advice.

Eve contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a physician.

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.

#### 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

Not flammable. Specific hazards arising from the

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chemical

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

**Explosion data** 

Sensitivity to mechanical impact No information available.

Sensitivity to static discharge No information available.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters

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

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Use personal protection equipment.

#### Section 6: ACCIDENTAL RELEASE MEASURES

#### 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.

6.2. Environmental precautions

**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 dust/fume/gas/mist/vapors/spray. Avoid contact with skin, eyes or 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.

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

#### 8.1. Control parameters

**Exposure Limits** 

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

**Bupivacaine Hydrochloride** 

Pfizer OEL TWA-8 Hr: 20 µg/m<sup>3</sup>

**SODIUM CHLORIDE** 

TWA: 5 mg/m<sup>3</sup>; Latvia MAC: 5 mg/m<sup>3</sup> Russia

Sodium metabisulfite USP

**ACGIH TLV** TWA: 5 mg/m<sup>3</sup> Denmark TWA: 5 mg/m<sup>3</sup>; STEL: 10 mg/m<sup>3</sup>;

France 5 mg/m<sup>3</sup> TWA: 5 mg/m3; Ireland

STEL: 15 mg/m³ (calculated;thoracic fraction);

TWA-(VLA-ED): 5 mg/m<sup>3</sup>; Spain Switzerland

TWA-MAK: 5 mg/m<sup>3</sup>; inhalable dust

(vacated) TWA: 5 mg/m<sup>3</sup> **OSHA PEL** 

United Kingdom TWA: 5 mg/m<sup>3</sup>; STEL: 15 mg/m<sup>3</sup>;

Sodium hydroxide

ACGIH OEL (Ceiling) 2 mg/m<sup>3</sup> **ACGIH TLV** Ceiling: 2 mg/m3

TWA-TMW: 2 mg/m<sup>3</sup>; inhalable fraction Austria

STEL-KZGW: 4 mg/m³ (8 X 5 min); inhalable fraction

TWA: 2.0 mg/m<sup>3</sup>; alkaline aerosols Bulgaria

Czech Republic 1 mg/m<sup>3</sup>

Ceiling: 2 mg/m<sup>3</sup> Denmark Ceiling: 2 mg/m3; Estonia TWA: 1 mg/m<sup>3</sup>; STEL: 2 mg/m3;

Finland Ceiling: 2 mg/m3; 2 mg/m<sup>3</sup> France

Hungary TWA-AK: 1 mg/m3;

STEL-CK: 2 mg/m3;

Ireland STEL: 2 mg/m3; Ceiling Limit Value 2 mg/m<sup>3</sup>

Latvia TWA: 0.5 mg/m<sup>3</sup>; Poland TWA-NDS: 0.5 mg/m<sup>3</sup>; STEL-NDSCh: 1 mg/m3;

TWA: 1 mg/m<sup>3</sup>; Romania STEL: 3 mg/m3;

Slovakia TWA: 2 mg/m<sup>3</sup>; STEL (VLA-EC): 2 mg/m3; Spain

Switzerland

TWA-MAK: 2 mg/m3; inhalable dust STEL-KZGW: 2 mg/m3; inhalable dust

**OSHA PEL** TWA: 2 mg/m<sup>3</sup>

(vacated) Ceiling: 2 mg/m<sup>3</sup>

STEL: 2 mg/m<sup>3</sup>; United Kingdom

+ Hydrochloric Acid

ACGIH OEL (Ceiling) 2 ppm

**ACGIH TLV** Ceiling: 2 ppm

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Austria TWA-TMW: 5 ppm; TWA-TMW: 8 mg/m<sup>3</sup>; STEL-KZGW: 10 ppm (8 X 5 min); STEL-KZGW: 15 mg/m<sup>3</sup> (8 X 5 min); Bulgaria TWA: 5 ppm; TWA: 8.0 mg/m<sup>3</sup>; STEL: 10 ppm; STEL: 15.0 mg/m<sup>3</sup>; Czech Republic 8 mg/m<sup>3</sup> Ceiling: 15 mg/m<sup>3</sup> Denmark STEL: 5 ppm; STEL: 8 mg/m<sup>3</sup>; Estonia TWA: 5 ppm; TWA: 8 mg/m<sup>3</sup>; STEL: 10 ppm; STEL: 15 mg/m<sup>3</sup>; **European Union** TWA: 5 ppm; TWA: 8 mg/m<sup>3</sup>; STEL: 10 ppm; STEL: 15 mg/m<sup>3</sup>; Finland STEL: 5 ppm; STEL: 7.6 mg/m<sup>3</sup>; Germany DFG TWA-MAK: 2 ppm; I(2); TWA-MAK: 3.0 mg/m<sup>3</sup>; I(2); Peak: 4 ppm; Peak: 6 mg/m3; Germany TRGS TWA-AGW; 2 ppm (exposure factor 2); TWA-AGW; 3 mg/m³ (exposure factor 2); Hungary TWA-AK: 8 mg/m<sup>3</sup>; TWA-AK: 5 ppm; STEL-CK: 165 mg/m<sup>3</sup>; STEL-CK: 10 ppm; Ireland TWA: 8 mg/m<sup>3</sup>; TWA: 5 ppm; STEL: 10 ppm; STEL: 15 mg/m<sup>3</sup>; Italy MDLPS TWA: 5 ppm; TWA: 8 mg/m<sup>3</sup>; STEL: 10 ppm; STEL: 15 mg/m<sup>3</sup>; Ceiling Limit Value 2 ppm 3.0 mg/m<sup>3</sup> TWA: 5 ppm; Latvia TWA: 8 mg/m<sup>3</sup>; STEL: 10 ppm; STEL: 15 mg/m<sup>3</sup>; Netherlands TWA: 5 ppm; TWA: 8 mg/m<sup>3</sup>; STEL: 10 ppm; STEL: 15 mg/m3; Poland TWA-NDS: 5 mg/m<sup>3</sup>; STEL-NDSCh: 10 mg/m3; Romania TWA: 5 ppm; TWA: 8 mg/m<sup>3</sup>; STEL: 10 ppm; STEL: 15 mg/m<sup>3</sup>;

MAC: 5 mg/m<sup>3</sup>

Russia

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Slovakia TWA: 5 ppm;

TWA: 8.0 mg/m<sup>3</sup>; Ceiling: 15 mg/m<sup>3</sup>;

Spain TWA-(VLA-ED): 5 ppm;

TWA-(VLA-ED): 7.6 mg/m<sup>3</sup>; STEL (VLA-EC): 10 ppm; STEL (VLA-EC): 15 mg/m<sup>3</sup>; Page 8/16

Switzerland TWA-MAK: 2 ppm;

TWA-MAK: 3 mg/m<sup>3</sup>; STEL-KZGW: 4 ppm; STEL-KZGW: 6 mg/m<sup>3</sup>;

U.S. - OSHA - Final PELs - Ceiling Limits 5 ppm 7 mg/m³

OSHA PEL Ceiling: 5 ppm

Ceiling: 7 mg/m³ (vacated) Ceiling: 5 ppm (vacated) Ceiling: 7 mg/m³

United Kingdom TWA: 1 ppm; gas and aerosol mist

TWA: 2 mg/m³; gas and aerosol mist STEL: 5 ppm; gas and aerosol mist STEL: 8 mg/m³; gas and aerosol mist

**Pfizer Occupational Exposure Band** 

(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

revision when new information becomes available.

**SODIUM CHLORIDE** 

Pfizer Occupational Exposure

Band (OEB):

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

**Epinephrine bitartrate** 

Pfizer Occupational Exposure

Band (OEB):

OEB 4 - Skin (control exposure to the range of 1ug/m³ to <10ug/m³, provide additional

precautions to protect from skin contact)

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.

Personal protective equipment

Refer to applicable national standards and regulations in the selection and use of personal

protective equipment (PPE). 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.

**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

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

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

Skin and body protection Impervious 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.).

Respiratory protection Under normal conditions of use, 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 (e.g. particulate respirator with a half mask, P3 filter). (Respirators must meet the standards in accordance with EN140, EN143, ASTM F2704-10

or international equivalent.).

Thermal hazards No information available.

Environmental exposure controls No information available.

### Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance Solution
Physical state Solution

Color Clear, colorless

Odor No information available.
Odor threshold No information available

Property Values

Melting point / freezing point

Boiling point or initial boiling point and boiling range
Flammability (solid, gas)

No data available
No data available

Lower and upper explosion limit/flammability limit

Lower explosion limit
Upper explosion limit
Flash point
No data available

Decomposition temperature

SADT (°C) No data available

3.3-5.5

pH (as aqueous solution)

Kinematic viscosity

Dynamic viscosity

No data available
Vapor pressure

No data available
Density and/or relative density
Bulk density

No data available
No data available

Bulk densityNo data availableLiquid DensityNo data availableVapor densityNo data available

Particle characteristics

Particle Size No information available Particle Size Distribution No information available

9.2. Other information

Molecular formula Mixture
Molecular weight Mixture

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#### 9.2.1. Information with regard to physical hazard classes

No information available

#### 9.2.2. Other safety characteristics

No information available

#### Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

No information available. Reactivity

10.2. Chemical stability

Stability Stable under normal conditions.

**Explosion data** 

Sensitivity to mechanical impact No information available. Sensitivity to static discharge No information available.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions No information available.

10.4. Conditions to avoid

Conditions to avoid Fine particles (such as dust and 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 No data available.

#### Section 11: TOXICOLOGICAL INFORMATION

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

**General Information:** There are no data for this formulation. The information included in this section describes the

potential hazards of the individual ingredients

May cause mild eye irritation. May cause slight skin irritation. (based on components). Short term

Anesthetic drug: may cause central nervous system and cardiovascular system effects. Adverse effects associated with therapeutic use include dizziness, nervousness, agitation, **Known Clinical Effects:** drowsiness, apprehension, euphoria, blurred/double vision, slurred speech, tremors,

convulsions, and seizure. Respiratory depression and arrest may follow. Other, more serious effects seen with IV use of this drug, particularly when it is administered rapidly, are

cardiovascular collapse, central nervous system depression, and/or hypotension.

Based on available data, the classification criteria are not met. **Acute toxicity** Serious eve damage/eve irritation Based on available data, the classification criteria are not met.

Skin corrosion/irritation Based on available data, the classification criteria are not met. Respiratory or skin sensitization Based on available data, the classification criteria are not met. STOT - single exposure Based on available data, the classification criteria are not met. STOT - repeated exposure Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met. Reproductive toxicity Based on available data, the classification criteria are not met. Germ cell mutagenicity Based on available data, the classification criteria are not met. Carcinogenicity

**Aspiration hazard** Based on available data, the classification criteria are not met.

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

**Bupivacaine Hydrochloride** 

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Rabbit Oral LD50 18 mg/kg

Rat Para-periosteal LD50 6 mg/kg

Rat Subcutaneous LD50 43 mg/kg

Mouse Intravenous LD50 6.1 mg/kg

#### SODIUM CHLORIDE

Rat Sub-tenon injection (eye) LC50/1hr > 42 g/m<sup>3</sup>

Rat Oral LD 50 3 g/kg

Mouse Oral LD 50 4 g/kg

Rabbit Dermal LD 50 > 10 g/kg

#### **Epinephrine bitartrate**

Mouse Oral LD50 4 mg/kg

#### Sodium hydroxide

Mouse IP LD50 40 mg/kg

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Water	> 90 mL/kg (Rat)	-	-
SODIUM CHLORIDE	= 3550 mg/kg (Rat)	> 10000 mg/kg (Rabbit)	> 42 mg/L (Rat)1 h
Sodium metabisulfite USP	= 1310 mg/kg (Rat)	> 2000 mg/kg (Rat)	-
Sodium hydroxide	= 325 mg/kg (Rat)	= 1350 mg/kg ( Rabbit )	-
Monothioglycerol		= 673 mg/kg (Rabbit)	-
Edetate calcium disodium	= 10 g/kg (Rat)	-	> 1.13 mg/L (Rat)7 h
+ Hydrochloric Acid	238 - 277 mg/kg (Rat)	> 5010 mg/kg (Rabbit)	= 1.68 mg/L (Rat) 1 h

**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)

### SODIUM CHLORIDE

Skin irritation Rabbit Mild Eye irritation Rabbit Mild

+ Hydrochloric Acid

Skin irritation Severe

Eye irritation Severe

Sodium hydroxide

Eye Irritation Rabbit Severe

Skin Irritation Rabbit Severe

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

#### **Bupivacaine Hydrochloride**

1 Month(s) Rabbit Subcutaneous 9 mg/kg LOAEL Central nervous system

1 Month(s) Dog Subcutaneous 9 mg/kg NOAEL None identified

Repeated Dose Toxicity Comments: Bupivacaine Hydrochloride: \* Doses were administered twice a week.2

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

#### **Bupivacaine Hydrochloride**

Prenatal & Postnatal Development Intravenous 0.6 mg/kg LOAEL Neonatal toxicity

Embryo / Fetal Development Rat Subcutaneous 13.3 mg/kg/day NOAEL Maternal Toxicity

Embryo / Fetal Development Rat Subcutaneous 40 mg/kg/day NOAEL Developmental toxicity

Embryo / Fetal Development Rabbit Subcutaneous 22.2 mg/kg/day NOAEL Maternal Toxicity Embryo / Fetal Development Rabbit Subcutaneous 5.8 mg/kg/day NOAEL Developmental toxicity

Peri-/Postnatal Development Rat Subcutaneous 13.3 mg/kg/day NOAEL Fetotoxicity

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

**Bupivacaine Hydrochloride** 

Mammalian Cell Mutagenicity Negative

+ Hydrochloric Acid

Bacterial Mutagenicity (Ames) Salmonella Negative

In Vivo Micronucleus Rat Negative

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

OSHA.

Sodium metabisulfite USP

IARC Group 3

+ Hydrochloric Acid

IARC Group 3

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

**Endocrine disrupting properties** Based on available data, the classification criteria are not met.

11.2.2. Other information

Other adverse effects No information available.

#### Section 12: ECOLOGICAL INFORMATION

Environmental Overview: Environmental properties have not been thoroughly investigated. Releases to the

environment should be avoided.

12.1. Toxicity

No information available

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

**Bioaccumulation** No information available.

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
SODIUM CHLORIDE	Not PBT/vPvB PBT assessment does not apply
Sodium metabisulfite USP	Not PBT/vPvB PBT assessment does not apply

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+ Hydrochloric Acid	Not PBT/vPvB PBT assessment does not apply
Monothioglycerol	Not PBT/vPvB
Sodium hydroxide	Not PBT/vPvB PBT assessment does not apply

#### 12.6. Endocrine disrupting properties

**Endocrine disrupting properties** Based on available data, the classification criteria are not met.

12.7. Other adverse effects

Other adverse effects No information available.

PMT or vPvM properties Based on available data, the classification criteria are not met.

#### Section 13: DISPOSAL CONSIDERATIONS

#### 13.1. Waste treatment methods

#### Waste from residues/unused products

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.

Not applicable **UN number:** UN proper shipping name: Not applicable Not applicable Transport hazard class(es): Packing group: Not applicable **Environmental Hazard(s):** Not applicable

### Section 15: REGULATORY INFORMATION

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

Water

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

Bupivacaine Hydrochloride

PZ03150

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

SODIUM CHLORIDE

CERCLA/SARA Section 313 de minimus % Not Listed
California Proposition 65 Not Listed
TSCA Present
EINECS 231-598-3
AICS Present

Sodium metabisulfite USP

CERCLA/SARA Section 313 de minimus % Not Listed
California Proposition 65 Not Listed
TSCA Present
EINECS 231-673-0
AICS Present
Standard for Uniform Scheduling of Medicines and Schedule 5

Poisons (SUSMP) Epinephrine bitartrate

CERCLA/SARA Section 313 de minimus % Not Listed
California Proposition 65 Not Listed
EINECS 200-097-1
AICS Present

Sodium hydroxide

CERCLA/SARA Section 313 de minimus % Not Listed **Hazardous Substances RQs** 1000 lb **California Proposition 65** Not Listed **TSCA** Present **EINECS** 215-185-5 Present **AICS** Schedule 5 Standard for Uniform Scheduling of Medicines and Poisons (SUSMP) Schedule 6

Monothioglycerol

CERCLA/SARA Section 313 de minimus % Not Listed
California Proposition 65 Not Listed
TSCA Present
EINECS 202-495-0
AICS Present

Edetate calcium disodium

CERCLA/SARA Section 313 de minimus % Not Listed
California Proposition 65 Not Listed
TSCA Present
EINECS 200-529-9
AICS Present

+ Hydrochloric Acid

CERCLA/SARA Section 313 de minimus % 1.0 % **Hazardous Substances RQs** 5000 lb **California Proposition 65** Not Listed **TSCA** Present **EINECS** 231-595-7 Present **AICS** Standard for Uniform Scheduling of Medicines and Schedule 5 Poisons (SUSMP) Schedule 6

National regulations

France

Occupational Illnesses (R-463-3, France)

Chemical name French RG number

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SODIUM CHLORIDE 7647-14-5	RG 78
Sodium metabisulfite USP 7681-57-4	RG 66

**Germany** 

Chemical Prohibition Ordinance (ChemVerbotsV)

Not applicable

TRGS 905 Not applicable

#### Switzerland

Ordinance on the Incentive Tax on Volatile Organic Compounds (OVOC) SR 814.018

Storage of Hazardous Material

WPO (GSchV) SR 814.201; WPA (GSchG) SR 814.20

Major Accidents Ordinance SR 814.012

Not applicable

Not applicable

#### **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 contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH	Substance subject to authorization per
	Annex XVII	REACH Annex XIV
Sodium metabisulfite USP	75	-
7681-57-4		
Sodium hydroxide	75	-
1310-73-2		
+ Hydrochloric Acid	75	-
7647-01-0		

#### **Persistent Organic Pollutants**

Not applicable

Named dangerous substances per Seveso Directive (2012/18/EU)

	Chemical name	Lower-tier requirements (tons)	Upper-tier requirements (tons)
Ī	+ Hydrochloric Acid 7647-01-0	25	250

#### Ozone-depleting substances (ODS) Regulation (EU) 2024/590

Not applicable.

#### EU - Plant Protection Products (1107/2009/EC)

Chemical name	EU - Plant Protection Products (1107/2009/EC)
SODIUM CHLORIDE 7647-14-5	Plant protection agent
7047-14-5	

Biocidal Products Regulation (EU) No 528/2012 (BPR)

Chemical name	Biocidal Products Regulation (EU) No 528/2012 (BPR)
SODIUM CHLORIDE	Product-type 1: Human hygiene
7647-14-5	
Sodium metabisulfite USP	Product-type 9: Fiber, leather, rubber and polymerized

PZ03150

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7681-57-4	materials preservatives
+ Hydrochloric Acid	Product-type 2: Disinfectants and algaecides not intended
7647-01-0	for direct application to humans or animals

#### **Explosives Precursors Marketing and Use (2019/1148)**

Not applicable

#### Legend:

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

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

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

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing Chemicals Inventory

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

TCSI - Taiwan Chemical Substance Inventory

#### 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 any hazard and/or precautionary statements referred to under Sections 2-15

H300 - Fatal if swallowed H302 - Harmful if swallowed H314 - Causes severe skin burns and eye damage H318 - Causes serious eye damage H331 - Toxic if inhaled

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

Safety data sheets for individual ingredients.

**Reason for revision** Updated Section 2 - Hazard Identification. Updated Section 16 - Other Information.

Revision date 18-Jun-2025

Prepared By Pfizer Global Environment, Health, and Safety

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