

## **SAFETY DATA SHEETS**

**This SDS packet was issued with item:**

078905410

**The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).**

078036207

**The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).**

078905411



# Material Safety Data Sheet

Flunixinamine

WW MSDS No. 305601

## Section 1. Product and Company Identification

<b>Manufactured/ Supplied by</b>	Fort Dodge Animal Health 800 5th Street NW P.O. Box 518 Fort Dodge, IA 50501 Phone: 515-955-4600 Fax: 515-955-9149	<b>Date of Preparation</b>	11 August 2004
		<b>Product No.</b>	305601
<b>Product Trade Name</b>	Flunixinamine	<b>Formula No.</b>	Not available.
<b>Common Name</b>	Not applicable.	<b>CAS No.</b>	Mixture.
<b>Synonyms</b>	Flunixin meglumine.	<b>U.N. No.</b>	Not applicable.
<b>Chemical Formula</b>	Mixture.	<b>EINECS No.</b>	Not applicable.
<b>Chemical Family</b>	Anti-inflammatory Agents.	<b>In Case of Emergency</b> 515-955-6033	
<b>Material Uses</b>	Pharmaceutical: Veterinary pharmaceutical.		
<b>Packaging</b>	Glass bottle/vial		
<b>Formula Type</b>	Injectable solution.		

## Section 2. Composition - Information on Ingredients

Name of Ingredients	CAS No.	Conc.	EU Symbol	R Phrase
1) Flunixin Meglumine	6284-40-8	5	Xn	R42/43
2) Phenol	108-95-2	0.5	C	R34, R24/25
3) Sodium Formaldehyde Sulfoxylate	149-44-0	0.25	Xn	R37
4) Inert Ingredients		>90%	Xi Not controlled.	Not controlled.

## Section 3. Hazards Identification - Summary of Primary Effects and Critical Hazards

<b>Acute Health Effects</b>	Severely irritating to eyes.
<b>Chronic Health Effects</b>	<b>MUTAGENIC EFFECTS:</b> Mutagenic for mammals [ Propylene Glycol]. Mutagenic for mammals Potential organ systems effected are: Central Nervous System (CNS), Gastrointestinal Tract.
<b>Environmental Hazards</b>	No known significant effects or critical hazards.

## Section 4. First Aid Measures - (by medical responders using "Universal Precautions")

<b>Eye Contact</b>	Flush eyes with plenty of water for 15 minutes, occasionally lifting upper and lower eyelids. (Check person for contact lenses and remove if present.) If redness or irritation persists have eyes examined by doctor immediately.
<b>Skin Contact</b>	Flush skin with plenty of soap and water for at least 15 minutes (remove all contaminated clothing and shoes). Get medical attention if symptoms persist.
<b>Inhalation</b>	No specific treatment, treat symptomatically. If breathing is difficult give oxygen, if respiratory arrest occurs provide artificial respiration and seek immediate medical assistance.
<b>Ingestion</b>	No specific treatment, treat symptomatically. Call medical doctor or poison control center immediately if large quantities are ingested.
<b>Notes to Medical Doctor</b>	Direct treatment at control of symptoms.

Continued on Next Page

Obtained by Global Safety Management, 1-813-435-5161 - www.GSMSDS.com

**Section 5. Fire-Fighting Measures**

<b>Extinguishing Media and Instructions</b>	Follow your company's procedures. Use an extinguishing agent suitable for the surrounding class of fire.
<b>Special Exposure Hazards</b>	None. Dispose of fire debris and contaminated fire fighting water in accordance with regulations. Collect contaminated fire fighting water and prevent entry into drains and waterways.
<b>Special Fire Fighting Protective Equipment</b>	Qualified persons wearing full fire-fighting suits and approved/certified self-contained breathing apparatus.

**Section 6. Accidental Release Measures**

<b>Small Spill Guidelines</b>	Follow your company's spill procedures. Keep people away from spill. Put on appropriate personal protective equipment (see Section 8). Use a tool to scoop up solid or absorbed material and put into appropriate labeled waste container.
<b>Large Spill Guidelines</b>	Initiate company's spill response procedures immediately. Keep people out of area. Put on appropriate personal protective equipment (see Section 8). Absorb with an inert material and put the spilled material in an appropriate waste disposal.
<b>Environmental Precautions</b>	Dike spill area and do not allow product to reach sewage system and surface or ground water. Provide notification of any reportable spill to authorities. (See Section 12 for environmental risks and 13 for disposal informations.) Clean spill area and tools used several times with inert absorbents and put in container for appropriate disposal.

**Section 7. Handling and Storage**

<b>Handling (ventilation and fire prevention)</b>	Avoid contact with eyes. Wash thoroughly after handling.
<b>Storage (conditions and limitations)</b>	Keep container tightly closed. Keep in a well-ventilated place. Store between 15 to 30°C (59 to 86°F)

**Section 8. Exposure Controls and Personal Protection - (normal and intended use)**

Exposure Guidelines					
Component		REG. Limit	OSHA (PEL)	ACGIH (TLV®)	Company Guideline
1) Phenol	TWA:	19 mg/m³	19 mg/m³	19 mg/m³	SKIN
	SKIN		SKIN	SKIN	
2) Propylene Glycol	TWA:	156 mg/m³			
Engineering Design and Control Measures	General ventilation is typically sufficient to keep airborne levels below established values. Provide eye wash and quick drench shower close to work station. Clean, appropriately launder, or dispose of all potentially contaminated work clothing, foot wear, and protective equipment after use.				
Protective Clothing					
Eyes	Safety glasses. Goggles, face shield, or other full-face protection where if the potential exists for direct exposure to aerosols or splashes.				
Skin	Lab coat.				
Hands	Gloves, Chemical resistant. Gloves, Nitrile.				
Respiratory	Respirator selection must be based on anticipated exposure levels, product hazards, and the safe working limits of the selected respirator. A respirator is not needed under normal and intended conditions of product use.				

Continued on Next Page

**Section 9. Physical and Chemical Properties**

<b>Physical State and Appearance</b>	Liquid.	<b>Odor</b>	Slight.
<b>Molecular Weight</b>	Mixture.	<b>Color</b>	Clear
<b>Boiling Point</b>	Not available.	<b>pH</b>	8.3 [Basic.]
<b>Melting/Freezing Point</b>	0°C (32°F) based on data for: Water For Injection.		
<b>Density/Bulk Density</b>	Weighted average: 1.01 (Water = 1)		
<b>Vapor Pressure</b>	18 mm of Hg (@ 20°C) (Water For Injection.).		
<b>Vapor Density</b>	2.62 (Air = 1) (Propylene Glycol).		
<b>Viscosity</b>	Not available.		
<b>Partition Coefficient</b>	The product is more soluble in oil.		
<b>Solubility</b>	Flunixin Injection: Partially soluble in cold water, hot water.		
<b>Flash Point</b>	Not applicable.		
<b>Autoignition Point</b>	Not applicable.		
<b>Explosion Limits</b>	Not applicable.		
<b>Dust Explosivity</b>	Not applicable.		

**Section 10. Stability and Reactivity**

<b>Conditions to Avoid and Incompatibility</b>	Highly reactive with oxidizing agents. Reactive with acids, alkalis.
<b>Decomposition Products</b>	These products are carbon oxides (CO, CO <sub>2</sub> ), nitrogen oxides (NO, NO <sub>2</sub> ...), sulfur oxides (SO <sub>2</sub> , SO <sub>3</sub> ...).

**Section 11. Toxicological Information****Acute Effects**

Component	Test	Result	Route	Species
1) Phenol	LD50	317 mg/kg	oral	Rat
	LD50	270 mg/kg	oral	Mouse
	LD50	630 mg/kg	dermal	Rabbit
	LD50	669 mg/kg	dermal	Rat
2) Propylene Glycol	LD50	20000 mg/kg	oral	Rat
	LD50	22000 mg/kg	oral	Mouse
	LD50	20800 mg/kg	dermal	Rabbit
3) Sodium Formaldehyde Sulfoxylate	LD50	>2000 mg/kg	oral	Rat
	LD50	4000 mg/kg	oral	Mouse
4) Water For Injection.	LD50	90000 mg/kg	oral	Rat

**Eye Contact** Severely irritating (USA). Irritating (EU).

**Skin Contact** Moderately irritating (USA). Irritating (EU).

**Inhalation** Slightly irritating to the respiratory system.

**Ingestion** Practically non-toxic if swallowed.

**Chronic Effects**

**Continued on Next Page**

<b>Target Organs</b>	Potential organ systems effected are: Central Nervous System (CNS), Gastrointestinal Tract.
<b>Adverse Effects Statements</b>	Adverse affects could include uncoordination, motor and sensory paralysis discomfort (gastrointestinal)
<b>Sensitization</b>	Not available.
<b>Carcinogenic Effects</b>	Classified (ACGIH-A4-Not Classifiable as a Human Carcinogen), 3 (Not classifiable for human.) by IARC [ Phenol].
<b>Mutagenic Effects</b>	Mutagenic for mammals [ Propylene Glycol].
<b>Teratogenic Effects</b>	No known human teratogenic effect
<b>Reproductive Effects</b>	No evidence of human reproductive effects.
<b>Other Effects</b>	FDA C - Risk cannot be ruled out.

## Section 12. Ecological Information

Environmental Fate	Not available.		
Environmental Hazards	No known significant effects or critical hazards.		
Ecotoxicity			
Component	Species	Period	Result
1) Phenol	Trout	48 hours	9.4 mg/l
	EC50 (daphnia)	48 hours	10 mg/l
Other	Not available.		

## Section 13. Disposal Considerations

<b>Waste Handling and Disposal</b>	Medical waste Avoid disposal, make attempts to use product completely in accordance with intended use. Incinerate unwanted products and waste materials.
<i>Note: The waste generator must be informed of and follow all applicable rules and regulations for the handling and disposal of waste.</i>	

## Section 14. Transport Information

Proper Shipping Name, Primary Class, UNNA Number, Pakaging Group	Not controlled		
ADR/RID Classification (Road and Rail Transport)	Not controlled.		
ADNR Classification (Inland Waterways)	Not controlled.		
IMO/IMDG Class (Maritime Transport)	Not controlled.		
ICAO/IATA (Air Transport)	Not controlled.		
CEFIC Tremcard	Not available.	HI Kemler	Not available.

Continued on Next Page

**Flunixinamine**

Page Number: 5 of 5

**U.S.A. DOT Class** Not controlled.**NFPA**

Health



Flammability

Reactivity

Specific hazard

**RQ** Not applicable.**Packaging Instructions** Not available.**Section 15. Regulatory Information and Warning Labels****(R) Risk Phrases** R22- Harmful if ingested.  
R36/38- Irritating to eyes and skin.

[Xi] Irritant.

**(S) Safety Phrases** S41- In case of fire and/or explosion do not breathe fumes.**NOTE:** This product has been classified in accordance with applicable country-specific regulations.**Section 16. Other Key Information****Other Considerations** See product label and package insert for additional information.**11 August 2004** **Responsible for MSDS:** FDAH Environmental, Health, and Safety Department

Fort Dodge Animal Health -- A Division of Wyeth Corporation

**Notice to Reader***\* This symbol indicates information which has changed from the previous MSDS.**The information provided in this MSDS is based on current knowledge, however, this does not constitute a warranty by the Company for that information. The product user is responsible for the appropriate and intended handling, use, and disposal of this product in accordance with label or package precautions and this information. All materials may present unknown hazards and should be used with caution.*

Attn: SAFETY DIRECTOR

EMERGENCY PHONE- 573-443-5363 DATE-11/14/2012

## **MATERIAL SAFETY DATA SHEET**

IDENTIFICATION- Product Code: 7910.00

Name: ENDOVAC-EQUI® Salmonella Typhimurium Bacterin Toxoid

TOXICITY HAZARDS -No toxicity data available

HEALTH HAZARDS DATA-

ACUTE EFFECTS:

-May be harmful if swallowed as the toxicological properties have not been thoroughly investigated.

FIRSTAID- In case of skin contact, wash thoroughly with soap and water. If swallowed, call a physician.

FIRE AND EXPLOSION HAZARD DATA- No fire or explosion hazard exists

-PHYSICAL DATA- Appearance and Odor: Opaque liquid

REACTIVITY and STABILITY DATA -Stable

SPILL OR LEAK PROCEDURES- No special requirements are necessary

PRECAUTIONS TO BE TAKEN REGARDING HANDLING & STORAGE-

- Store at 2° – 7° C.

The above information is believed to be correct, but does not purport to be all inclusive and shall only be used as a guide.

IMMVAC INC. shall not be held liable for any damage resulting from handling or from contact with the above product.

#

# SAFETY DATA SHEET



Revision date: 24-Apr-2015

Version: 3.0

Page 1 of 14

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

### Product Identifier

**Material Name:** Flunixinamine (flunixin meglumine) Injectable Solution (U.S. only)

**Trade Name:** FLUNIXAMINE  
**Synonyms:** MEFLOSYL  
**Chemical Family:** Mixture

### Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

**Intended Use:** Veterinary product used as Non-steroidal, anti-inflammatory drug (NSAID)  
**Restrictions on Use:** Not for human use

### Details of the Supplier of the Safety Data Sheet

Zoetis Inc.  
100 Campus Drive, P.O. Box 651  
Florham Park, New Jersey 07932 (USA)  
Rocky Mountain Poison and Drug Center Phone: 1-866-531-8896  
Product Support/Technical Services Phone: 1-800-366-5288

Zoetis Belgium S.A.  
Mercuriusstraat 20  
1930 Zaventem  
Belgium

**Emergency telephone number:**  
**CHEMTREC (24 hours):** 1-800-424-9300  
**Contact E-Mail:** VMIPSrecords@zoetis.com

**Emergency telephone number:**  
**International CHEMTREC (24 hours):** +1-703-527-3887

## 2. HAZARDS IDENTIFICATION

**Appearance:** Clear liquid

### Classification of the Substance or Mixture

#### GHS - Classification

Acute Oral Toxicity: Category 4  
Acute Toxicity - Dusts and Mists: Category 5  
Skin Corrosion/Irritation: Category 2  
Serious Eye Damage/Eye Irritation: Category 1  
Carcinogenicity: Category 2  
Specific target organ systemic toxicity (repeated exposure): Category 2  
Acute aquatic toxicity: Category 3  
Chronic aquatic toxicity: Category 3

#### EU Classification:

EU Indication of danger: Toxic  
Dangerous for the Environment

EU Symbol: T N  
EU Risk Phrases:

R23 - Toxic by inhalation.  
R22 - Harmful if swallowed.  
R36 - Irritating to eyes.  
R38 - Irritating to skin.



## SAFETY DATA SHEET

Material Name: Flunixamine (flunixin meglumine) Injectable  
Solution (U.S. only)  
Revision date: 24-Apr-2015

Page 2 of 14

Version: 3.0

### 2. HAZARDS IDENTIFICATION

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

#### Label Elements

**Signal Word:** Danger  
**Hazard Statements:** H318 - Causes serious eye damage  
H315 - Causes skin irritation  
H302 - Harmful if swallowed  
H333 - May be harmful if inhaled  
H373 - May cause damage to organs through prolonged or repeated exposure ( gastrointestinal system , kidneys )  
H351 - Suspected of causing cancer  
H412 - Harmful to aquatic life with long lasting effects

**Precautionary Statements:** P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P271 - Use only outdoors or in a well-ventilated area  
P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
P270 - Do not eat, drink or smoke when using this product  
P264 - Wash hands thoroughly after handling  
P273 - Avoid release to the environment  
P308 + P313 - IF exposed or concerned: Get medical attention/advice  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P310 - Immediately call a POISON CENTRE or doctor/physician  
P301+ P312 - IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell  
P330 - Rinse mouth  
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
P312 - Call a POISON CENTRE/doctor/physician if you feel unwell  
P302+ P352 - IF ON SKIN: Wash with plenty of soap and water  
P332 + P313 - If skin irritation occurs: Get medical advice/attention  
P362 - Take off contaminated clothing and wash before reuse  
P403 - Store in a well-ventilated place  
P405 - Store locked up  
P501 - Dispose of contents/container in accordance with all local and national regulations



#### Other Hazards

**Short Term:** In the event of accidental injection, an allergic reaction may occur.  
**Long Term:** May cause damage to organs through prolonged or repeat exposure.  
**Known Clinical Effects:** Drugs of this class may cause gastrointestinal effects such as nausea, pain, heartburn, bleeding, ulceration, and perforation. Other nonsteroidal anti-inflammatory drugs (NSAIDs) are known to impact delivery, late fetal development, and lactation.

## SAFETY DATA SHEET

**Material Name:** Flunixamine (flunixin meglumine) Injectable  
**Solution (U.S. only)**  
**Revision date:** 24-Apr-2015

**Page 3 of 14**

**Version: 3.0**

**Australian Hazard Classification (NOHSC):**

Hazardous Substance. Non-Dangerous Goods.

**Note:** This document has been prepared in accordance with standards for workplace safety, which requires the inclusion of all known hazards of the product or its ingredients regardless of the potential risk. The precautionary statements and warning 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	GHS Classification	%
Propylene glycol	57-55-6	200-338-0	Not Listed	Not Listed	20
Flunixin meglumine	42461-84-7	255-836-0	T+;R26 T;R25 Xi;R41 Xn;R48/22 ;R51/53	Acute Tox. 1 (H330) Acute Tox. 2 (H300) Eye Dam. 1 (H318) STOT RE 2 (H373) Aquatic Tox. 2 (H401 and H411)	5
PHENOL	108-95-2	203-632-7	T; R23/24/25 C; R34 Xn; R48/20/21/22 Muta. Cat. 3; R68	Acute Tox. 3 (H301) STOT RE 2 (H373) Muta. 2 (341) Skin Corr. 1B (H314) Acute Tox. 3 (H331)	<1
2,2 IMINODIETHANOL	111-42-2	203-868-0	Xn; R22-48/22 Xi; R38-41	Acute Tox. 4 (H302) STOT RE 2 (H373) Skin Irrit. 2 (H315) Eye Dam. 1 (H318)	<1
HYDROCHLORIC ACID	7647-01-0	231-595-7	T; R23 C; R35	Skin Corr.1B (H314) STOT SE 3 (H335)	**

Ingredient	CAS Number	EU EINECS/ELINCS List	EU Classification	GHS Classification	%
Sodium formaldehyde sulfoxylate dihydrate	6035-47-8	Not Listed	Not Listed	Not Listed	*
Disodium EDTA (dihydrate)	6381-92-6	Not Listed	Not Listed	Not Listed	*
Water for Injection	7732-18-5	231-791-2	Not Listed	Not Listed	*

**Additional Information:**

\* Proprietary

\*\* to adjust pH

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.

**For the full text of the R phrases and CLP/GHS abbreviations mentioned in this Section, see Section 16**

## SAFETY DATA SHEET

Material Name: Flunixamine (flunixin meglumine) Injectable  
Solution (U.S. only)  
Revision date: 24-Apr-2015

Page 4 of 14

Version: 3.0

### 4. FIRST AID MEASURES

#### Description of 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.

#### Most Important Symptoms and Effects, Both Acute and Delayed

- 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.
- Medical Conditions Aggravated by Exposure:** None known

#### Indication of the Immediate Medical Attention and Special Treatment Needed

- Notes to Physician:** None

### 5. FIRE-FIGHTING MEASURES

- Extinguishing Media:** Extinguish fires with CO2, extinguishing powder, foam, or water.

#### Special Hazards Arising from the Substance or Mixture

- Hazardous Combustion Products:** Formation of toxic gases is possible during heating or fire.
- Fire / Explosion Hazards:** Fine particles (such as dust and mists) may fuel fires/explosions.

#### Advice for Fire-Fighters

- During all fire fighting activities, wear appropriate protective equipment, including self-contained breathing apparatus.

### 6. ACCIDENTAL RELEASE MEASURES

#### Personal Precautions, Protective Equipment and Emergency Procedures

- Ensure adequate ventilation. Personnel involved in clean-up should wear appropriate personal protective equipment (see Section 8). Minimize exposure.

#### Environmental Precautions

- Place waste in an appropriately labeled, sealed container for disposal. Care should be taken to avoid environmental release.

#### Methods and Material for Containment and Cleaning Up

- Measures for Cleaning / Collecting:** Contain the source of spill if it is safe to do so. Collect spill with absorbent material. Clean spill area thoroughly.
- 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.

## SAFETY DATA SHEET

Material Name: Flunixamine (flunixin meglumine) Injectable  
Solution (U.S. only)  
Revision date: 24-Apr-2015

Page 5 of 14

Version: 3.0

### 7. HANDLING AND STORAGE

#### Precautions for Safe Handling

When handling, use appropriate personal protective equipment (see Section 8). Keep away from heat, sparks, and flame. Use with adequate ventilation. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Avoid accidental injection. 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.

#### Conditions for Safe Storage, Including any Incompatibilities

**Storage Conditions:** Store as directed by product packaging. Keep containers tightly closed in a cool, well-ventilated place

**Storage Temperature:** 15-30°C (59-86°F)

**Incompatible Materials:** Acids, bases, and oxidizers

**Specific end use(s):** No data available

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Control Parameters

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

#### Propylene glycol

Australia TWA	150 ppm 474 mg/m <sup>3</sup> 10 mg/m <sup>3</sup>
Ireland OEL - TWAs	150 ppm 470 mg/m <sup>3</sup> 10 mg/m <sup>3</sup>
Latvia OEL - TWA	7 mg/m <sup>3</sup>
Lithuania OEL - TWA	7 mg/m <sup>3</sup>

#### PHENOL

ACGIH Threshold Limit Value (TWA)	5 ppm
ACGIH - Biological Exposure Limit:	250 mg/g creatinine
Australia TWA	1 ppm 4 mg/m <sup>3</sup>
Austria OEL - MAKs	2 ppm 8 mg/m <sup>3</sup>
Belgium OEL - TWA	2 ppm 8 mg/m <sup>3</sup>
Bulgaria OEL - TWA	8 mg/m <sup>3</sup> 2 ppm
Bulgaria - Biological Exposure Limit:	200 mg/L
Cyprus OEL - TWA	8 mg/m <sup>3</sup> 2 ppm
Czech Republic OEL - TWA	7.5 mg/m <sup>3</sup>
Denmark OEL - TWA	1 ppm 4 mg/m <sup>3</sup>

#### 2,2 IMINODIETHANOL

ACGIH Threshold Limit Value (TWA)	1 mg/m <sup>3</sup>
ACGIH - Skin Absorption Designation	Skin - potential significant contribution to overall exposure by the cutaneous route

## SAFETY DATA SHEET

Material Name: Flunixamine (flunixin meglumine) Injectable  
 Solution (U.S. only)  
 Revision date: 24-Apr-2015

Page 6 of 14

Version: 3.0

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Australia TWA	3 ppm 13 mg/m <sup>3</sup>
Austria OEL - MAKs	0.46 ppm 2 mg/m <sup>3</sup>
Belgium OEL - TWA	0.46 ppm 2 mg/m <sup>3</sup>
Bulgaria OEL - TWA	10 mg/m <sup>3</sup>
Czech Republic OEL - TWA	5 mg/m <sup>3</sup>
Denmark OEL - TWA	0.46 ppm 2 mg/m <sup>3</sup>
Estonia OEL - TWA	3 ppm 5 mg/m <sup>3</sup>
Finland OEL - TWA	0.46 ppm 2 mg/m <sup>3</sup>
France OEL - TWA	3 ppm 15 mg/m <sup>3</sup>
Germany (DFG) - MAK	1 mg/m <sup>3</sup>
Greece OEL - TWA	3 ppm 15 mg/m <sup>3</sup>
Ireland OEL - TWAs	1 mg/m <sup>3</sup>
Lithuania OEL - TWA	3 ppm 15 mg/m <sup>3</sup>
Poland OEL - TWA	9 mg/m <sup>3</sup>
Portugal OEL - TWA	2 mg/m <sup>3</sup>
Slovenia OEL - TWA	15 mg/m <sup>3</sup>
Spain OEL - TWA	0.46 ppm 2 mg/m <sup>3</sup>
Sweden OEL - TWAs	3 ppm 15 mg/m <sup>3</sup>
Switzerland OEL -TWAs	1 mg/m <sup>3</sup>
<b>HYDROCHLORIC ACID</b>	
ACGIH Ceiling Threshold Limit:	2 ppm
Australia PEAK	5 ppm 7.5 mg/m <sup>3</sup>
Austria OEL - MAKs	5 ppm 8 mg/m <sup>3</sup>
Belgium OEL - TWA	5 ppm 8 mg/m <sup>3</sup>
Bulgaria OEL - TWA	5 ppm 8.0 mg/m <sup>3</sup>
Cyprus OEL - TWA	5 ppm 8 mg/m <sup>3</sup>
Czech Republic OEL - TWA	8 mg/m <sup>3</sup>
Estonia OEL - TWA	5 ppm 8 mg/m <sup>3</sup>
Germany - TRGS 900 - TWAs	2 ppm 3 mg/m <sup>3</sup>
Germany (DFG) - MAK	2 ppm 3.0 mg/m <sup>3</sup>
Greece OEL - TWA	5 ppm 7 mg/m <sup>3</sup>

## SAFETY DATA SHEET

Material Name: Flunixamine (flunixin meglumine) Injectable  
Solution (U.S. only)  
Revision date: 24-Apr-2015

Page 7 of 14

Version: 3.0

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Hungary OEL - TWA	8 mg/m <sup>3</sup>
Ireland OEL - TWAs	5 ppm 8 mg/m <sup>3</sup>
Italy OEL - TWA	5 ppm 8 mg/m <sup>3</sup>
Japan - OELs - Ceilings	5 ppm 7.5 mg/m <sup>3</sup>
Latvia OEL - TWA	5 ppm 8 mg/m <sup>3</sup>
Lithuania OEL - TWA	5 ppm 8 mg/m <sup>3</sup>
Luxembourg OEL - TWA	5 ppm 8 mg/m <sup>3</sup>
Malta OEL - TWA	5 ppm 8 mg/m <sup>3</sup>
Netherlands OEL - TWA	8 mg/m <sup>3</sup>
Vietnam OEL - TWAs	5 mg/m <sup>3</sup>
Poland OEL - TWA	5 mg/m <sup>3</sup>
Portugal OEL - TWA	5 ppm 8 mg/m <sup>3</sup>
Romania OEL - TWA	5 ppm 8 mg/m <sup>3</sup>
Slovakia OEL - TWA	5 ppm 8.0 mg/m <sup>3</sup>
Slovenia OEL - TWA	5 ppm 8 mg/m <sup>3</sup>
Spain OEL - TWA	5 ppm 7.6 mg/m <sup>3</sup>
Switzerland OEL -TWAs	2 ppm 3.0 mg/m <sup>3</sup>

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.

#### Flunixin meglumine

##### Zoetis OEB

OEB 2 (control exposure to the range of 100ug/m<sup>3</sup> to < 1000ug/m<sup>3</sup>)

#### Exposure Controls

##### Engineering Controls:

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

##### 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.

##### Skin:

Impervious protective clothing is recommended if skin contact with drug product is possible and for bulk processing operations.

## SAFETY DATA SHEET

Material Name: Flunixamine (flunixin meglumine) Injectable  
Solution (U.S. only)  
Revision date: 24-Apr-2015

Page 8 of 14

Version: 3.0

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Respiratory protection:** If airborne exposures are within or exceed the Occupational Exposure Band (OEB) range, wear an appropriate respirator with a protection factor sufficient to control exposures to the bottom of the OEB range. 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

<b>Physical State:</b>	Liquid	<b>Color:</b>	Clear, colorless
<b>Odor:</b>	Slight	<b>Odor Threshold:</b>	No data available.
<b>Molecular Formula:</b>	Mixture	<b>Molecular Weight:</b>	Mixture
<b>Solvent Solubility:</b>	No data available		
<b>Water Solubility:</b>	Soluble		
<b>pH:</b>	8.3		
<b>Melting/Freezing Point (°C):</b>	0°C (32°F) based on water		
<b>Boiling Point (°C):</b>	100°C (212°F) based on water		
<b>Partition Coefficient: (Method, pH, Endpoint, Value)</b>	No data available		
<b>Decomposition Temperature (°C):</b>	No data available.		
<b>Evaporation Rate (Gram/s):</b>	No data available		
<b>Vapor Pressure (kPa):</b>	18 mm of Hg (@ 20°C) based on water		
<b>Vapor Density (g/ml):</b>	>1		
<b>Relative Density:</b>	No data available		
<b>Specific Gravity:</b>	1.01		
<b>Viscosity:</b>	No data available		
<b>Flammability:</b>			
<b>Autoignition Temperature (Solid) (°C):</b>	No data available		
<b>Flammability (Solids):</b>	No data available		
<b>Flash Point (Liquid) (°C):</b>	No data available		
<b>Upper Explosive Limits (Liquid) (% by Vol.):</b>	No data available		
<b>Lower Explosive Limits (Liquid) (% by Vol.):</b>	No data available		

### 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	No data available
<b>Chemical Stability:</b>	Stable under normal conditions of use.
<b>Possibility of Hazardous Reactions</b>	
<b>Oxidizing Properties:</b>	No data available
<b>Conditions to Avoid:</b>	Fine particles (such as dust and mists) may fuel fires/explosions.
<b>Incompatible Materials:</b>	Acids, bases, and oxidizers
<b>Hazardous Decomposition Products:</b>	Thermal decomposition products may include oxides of carbon, nitrogen, and sulfur.

### 11. TOXICOLOGICAL INFORMATION

#### Information on Toxicological Effects

**General Information:** Toxicological properties of the formulation have not been investigated. The information in this section describes the potential hazards of the individual ingredients and the formulation.  
Routes of exposure: eye contact , skin contact

## SAFETY DATA SHEET

Material Name: Flunixin meglumine (flunixin meglumine) Injectable  
Solution (U.S. only)  
Revision date: 24-Apr-2015

Page 9 of 14

Version: 3.0

### 11. TOXICOLOGICAL INFORMATION

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

##### **HYDROCHLORIC ACID**

Rat Oral LD 50 238-277 mg/kg

##### **Flunixin meglumine**

Rat Inhalation LC50 < 0.52 mg/L

Rat Oral LD50 53-157mg/kg

##### **Propylene glycol**

Rat Oral LD 50 22,000 mg/kg

Mouse Oral LD 50 24,900mg/kg

Rabbit Dermal LD 50 20,800mg/kg

##### **PHENOL**

Rat Oral LD50 317 mg/kg

Rat Dermal LD50 525mg/kg

Rabbit Dermal LD50 630mg/kg

Mouse Oral LD50 270mg/kg

##### **2,2 IMINODIETHANOL**

Rat Oral LD50 710 mg/kg

Rabbit Dermal LD50 11.9ml/kg

#### **Inhalation Acute Toxicity**

May be harmful if inhaled. May cause respiratory tract and mucous membrane irritation.

#### **Ingestion Acute Toxicity**

Harmful if swallowed.

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

##### **Flunixin meglumine**

Skin Irritation Rabbit Mild

Eye Irritation Rabbit Severe

Skin Sensitization - GPMT Negative

##### **Propylene glycol**

Skin Irritation Rabbit Mild

Eye Irritation Rabbit Mild

##### **2,2 IMINODIETHANOL**

Eye Irritation Rabbit Severe

Skin Irritation Rabbit Moderate

**Irritation / Sensitization Comments:** May cause irreversible eye damage.

**Skin Irritation / Sensitization** May cause skin irritation.

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

##### **Flunixin meglumine**

1 Year(s) Rat Oral 1 mg/kg/day NOEL Gastrointestinal System, Kidney



## SAFETY DATA SHEET

Material Name: Flunixin meglumine (flunixin meglumine) Injectable  
Solution (U.S. only)  
Revision date: 24-Apr-2015

Page 10 of 14

Version: 3.0

### 11. TOXICOLOGICAL INFORMATION

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

##### **Flunixin meglumine**

Fertility and Embryonic Development Rat Oral 2-12 mg/kg NOEL Not teratogenic  
Reproductive & Fertility Rat Oral 3-9 mg/kg NOEL Maternal Toxicity

##### **PHENOL**

2 Generation Reproductive Toxicity Rat Oral 1000 ppm NOAEL No effects at maximum dose  
Embryo / Fetal Development Rat Oral 120 mg/kg LOAEL Fetotoxicity, Not Teratogenic  
Fertility and Embryonic Development Rat Oral 53 mg/kg LOAEL Maternal Toxicity, Fetotoxicity, Not Teratogenic  
Embryo / Fetal Development Rat Intraperitoneal 200 mg/kg NOAEL No effects at maximum dose

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

##### **Flunixin meglumine**

Bacterial Mutagenicity (Ames) Bacteria Negative  
Micronucleus Mouse Negative  
Chromosome Aberration Chinese Hamster Ovary (CHO) cells Positive  
Mammalian Cell Mutagenicity Mouse Lymphoma Positive

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

##### **Flunixin meglumine**

104 Week(s) Rat Oral, in feed 8 mg/kg/day NOEL Not carcinogenic  
97 Week(s) Mouse Oral, in feed 6 mg/kg/day NOEL Not carcinogenic

##### **PHENOL**

103 Week(s) Rat Oral 5,000 ppm NOAEL Not carcinogenic  
103 Week(s) Mouse Oral 5,000 ppm NOAEL Not carcinogenic

**Carcinogen Status:** See below

##### **HYDROCHLORIC ACID**

**IARC:** Group 3 (Not Classifiable)

##### **2,2 IMINODIETHANOL**

**IARC:** Group 2B (Possibly Carcinogenic to Humans)

#### Product Level Toxicity Data

Acute Toxicity Estimate (ATE), oral 1000 mg/kg  
Acute Toxicity Estimate (ATE), inhalation (dust/mist) 10 mg/l  
Acute Toxicity Estimate (ATE), dermal >5000 mg/kg

## SAFETY DATA SHEET

Material Name: Flunixamine (flunixin meglumine) Injectable  
Solution (U.S. only)  
Revision date: 24-Apr-2015

Page 11 of 14

Version: 3.0

### 12. ECOLOGICAL INFORMATION

**Environmental Overview:** Environmental properties of the formulation have not been investigated. The following information is available for the individual ingredients. may be harmful to aquatic organisms. Releases to the environment should be avoided.

**Toxicity:**

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

#### Flunixin meglumine

*Lepomis macrochirus* (Bluegill Sunfish) LC50 96 Hours 46 mg/L  
*Salmo gairdneri* (Trout) LC50 96 Hours 9.2 mg/L  
*Daphnia Magna* (Water Flea) EC50 48 Hours 25 mg/L  
Algae IC50 72 Hours 36-120 mg/L

#### PHENOL

*Selenastrum capricornutum* (Green Alga) EC50 96 Hours 150 mg/L  
*Pimephales promelas* (Fathead Minnow) LC50 96 Hours 24 mg/L  
*Oncorhynchus mykiss* (Rainbow Trout) LC50 96 Hours 8.9 mg/L  
*Lepomis macrochirus* (Bluegill Sunfish) LC50 96 Hours 23.88 mg/L  
*Daphnia magna* (Water Flea) LC50 48 Hours 13 mg/L

**Persistence and Degradability:** No data available

**Bio-accumulative Potential:** No data available

**Mobility in Soil:** No data available

### 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.

U.S. DOT Reportable Quantity (RQ), 49 CFR 172.101 Appendix A:

2,2 IMINODIETHANOL

PZ01728

## SAFETY DATA SHEET

Material Name: Flunixinamine (flunixin meglumine) Injectable  
Solution (U.S. only)  
Revision date: 24-Apr-2015

Page 12 of 14

Version: 3.0

CERCLA/SARA Hazardous Substances  
and their Reportable Quantities: 100 lb  
45.4 kg

HYDROCHLORIC ACID  
CERCLA/SARA Hazardous Substances  
and their Reportable Quantities: 5000 lb  
2270 kg

### 15. REGULATORY INFORMATION

#### Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

##### Canada - WHMIS: Classifications

##### WHMIS hazard class:

Class D, Division 2, Subdivision A

Class D, Division 2, Subdivision B

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



##### Propylene glycol

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	200-338-0

##### Flunixin meglumine

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Australia (AICS):	Present
Standard for the Uniform Scheduling for Drugs and Poisons:	Schedule 4
EU EINECS/ELINCS List	255-836-0

##### PHENOL

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
EU EINECS/ELINCS List	203-632-7

##### 2,2 IMINODIETHANOL

CERCLA/SARA 313 Emission reporting	1.0 %
CERCLA/SARA Hazardous Substances and their Reportable Quantities:	100 lb 45.4 kg
California Proposition 65	carcinogen initial date 6/22/12
Inventory - United States TSCA - Sect. 8(b)	Present

## SAFETY DATA SHEET

Material Name: Flunixamine (flunixin meglumine) Injectable  
Solution (U.S. only)  
Revision date: 24-Apr-2015

Page 13 of 14

Version: 3.0

### 15. REGULATORY INFORMATION

Australia (AICS):	Present
Standard for the Uniform Scheduling	Schedule 5
for Drugs and Poisons:	Schedule 6
EU EINECS/ELINCS List	203-868-0

#### HYDROCHLORIC ACID

CERCLA/SARA 313 Emission reporting	1.0 %
CERCLA/SARA Hazardous Substances	5000 lb
and their Reportable Quantities:	2270 kg
CERCLA/SARA - Section 302 Extremely Hazardous	500 lb
TPQs	
CERCLA/SARA - Section 302 Extremely Hazardous	5000 lb
Substances EPCRA RQs	
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
Standard for the Uniform Scheduling	Schedule 5
for Drugs and Poisons:	Schedule 6
EU EINECS/ELINCS List	231-595-7

#### Sodium formaldehyde sulfoxylate dihydrate

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
EU EINECS/ELINCS List	Not Listed

#### Disodium EDTA (dihydrate)

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Australia (AICS):	Present
EU EINECS/ELINCS List	Not Listed

#### Water for Injection

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
REACH - Annex IV - Exemptions from the	Present
obligations of Register:	
EU EINECS/ELINCS List	231-791-2

### 16. OTHER INFORMATION

Text of R phrases and GHS Classification abbreviations mentioned in Section 3

## SAFETY DATA SHEET

**Material Name:** Flunixinamine (flunixin meglumine) Injectable  
**Solution (U.S. only)**  
**Revision date:** 24-Apr-2015

**Page 14 of 14**

**Version: 3.0**

---

H302 - Harmful if swallowed  
H373 - May cause damage to organs through prolonged or repeated exposure  
H315 - Causes skin irritation  
H318 - Causes serious eye damage  
H330 - Fatal if inhaled  
H300 - Fatal if swallowed  
H401 - Toxic to aquatic life  
H411 - Toxic to aquatic life with long lasting effects  
H314 - Causes severe skin burns and eye damage  
H335 - May cause respiratory irritation  
H301 - Toxic if swallowed  
H341 - Suspected of causing genetic defects  
H331 - Toxic if inhaled

R22 - Harmful if swallowed.  
R26 - Very toxic by inhalation.  
R34 - Causes burns.  
R35 - Causes severe burns.  
R38 - Irritating to skin.  
R41 - Risk of serious damage to eyes.  
R68 - Possible risks of irreversible effects.  
R23/24/25 - Toxic by inhalation, in contact with skin and if swallowed.  
R48/20/21/22 - Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.  
R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Data Sources:** The data contained in this SDS may have been gathered from confidential internal sources, raw material suppliers, or from the published literature.

**Reasons for Revision:** Updated Section 2 - Hazard Identification. Updated Section 11 - Toxicology Information.  
Updated Section 15 - Regulatory Information. Updated Section 10 - Stability and Reactivity.  
Updated Section 9 - Physical and Chemical Properties.

**Prepared by:** Toxicology and Hazard Communication  
Zoetis Global Risk Management

Zoetis Inc. believes that the information contained in this 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**

# SAFETY DATA SHEET



Revision date: 24-Apr-2015

Version: 3.0

Page 1 of 14

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

### Product Identifier

**Material Name:** Flunixinamine (flunixin meglumine) Injectable Solution (U.S. only)

**Trade Name:** FLUNIXAMINE  
**Synonyms:** MEFLOSYL  
**Chemical Family:** Mixture

### Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

**Intended Use:** Veterinary product used as Non-steroidal, anti-inflammatory drug (NSAID)  
**Restrictions on Use:** Not for human use

### Details of the Supplier of the Safety Data Sheet

Zoetis Inc.  
100 Campus Drive, P.O. Box 651  
Florham Park, New Jersey 07932 (USA)  
Rocky Mountain Poison and Drug Center Phone: 1-866-531-8896  
Product Support/Technical Services Phone: 1-800-366-5288

Zoetis Belgium S.A.  
Mercuriusstraat 20  
1930 Zaventem  
Belgium

**Emergency telephone number:**  
**CHEMTREC (24 hours):** 1-800-424-9300  
**Contact E-Mail:** VMIPSrecords@zoetis.com

**Emergency telephone number:**  
**International CHEMTREC (24 hours):** +1-703-527-3887

## 2. HAZARDS IDENTIFICATION

**Appearance:** Clear liquid

### Classification of the Substance or Mixture

#### GHS - Classification

Acute Oral Toxicity: Category 4  
Acute Toxicity - Dusts and Mists: Category 5  
Skin Corrosion/Irritation: Category 2  
Serious Eye Damage/Eye Irritation: Category 1  
Carcinogenicity: Category 2  
Specific target organ systemic toxicity (repeated exposure): Category 2  
Acute aquatic toxicity: Category 3  
Chronic aquatic toxicity: Category 3

#### EU Classification:

EU Indication of danger: Toxic  
Dangerous for the Environment

EU Symbol: T N  
EU Risk Phrases:

R23 - Toxic by inhalation.  
R22 - Harmful if swallowed.  
R36 - Irritating to eyes.  
R38 - Irritating to skin.

## SAFETY DATA SHEET

Material Name: Flunixamine (flunixin meglumine) Injectable  
Solution (U.S. only)  
Revision date: 24-Apr-2015

Page 2 of 14

Version: 3.0

### 2. HAZARDS IDENTIFICATION

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

#### Label Elements

**Signal Word:** Danger  
**Hazard Statements:** H318 - Causes serious eye damage  
H315 - Causes skin irritation  
H302 - Harmful if swallowed  
H333 - May be harmful if inhaled  
H373 - May cause damage to organs through prolonged or repeated exposure (gastrointestinal system, kidneys)  
H351 - Suspected of causing cancer  
H412 - Harmful to aquatic life with long lasting effects

**Precautionary Statements:** P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P271 - Use only outdoors or in a well-ventilated area  
P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
P270 - Do not eat, drink or smoke when using this product  
P264 - Wash hands thoroughly after handling  
P273 - Avoid release to the environment  
P308 + P313 - IF exposed or concerned: Get medical attention/advice  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P310 - Immediately call a POISON CENTRE or doctor/physician  
P301 + P312 - IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell  
P330 - Rinse mouth  
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
P312 - Call a POISON CENTRE/doctor/physician if you feel unwell  
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
P332 + P313 - If skin irritation occurs: Get medical advice/attention  
P362 - Take off contaminated clothing and wash before reuse  
P403 - Store in a well-ventilated place  
P405 - Store locked up  
P501 - Dispose of contents/container in accordance with all local and national regulations



#### Other Hazards

**Short Term:** In the event of accidental injection, an allergic reaction may occur.  
**Long Term:** May cause damage to organs through prolonged or repeat exposure.  
**Known Clinical Effects:** Drugs of this class may cause gastrointestinal effects such as nausea, pain, heartburn, bleeding, ulceration, and perforation. Other nonsteroidal anti-inflammatory drugs (NSAIDs) are known to impact delivery, late fetal development, and lactation.

## SAFETY DATA SHEET

**Material Name:** Flunixamine (flunixin meglumine) Injectable  
**Solution (U.S. only)**  
**Revision date:** 24-Apr-2015

**Page 3 of 14**

**Version: 3.0**

**Australian Hazard Classification (NOHSC):**

Hazardous Substance. Non-Dangerous Goods.

**Note:** This document has been prepared in accordance with standards for workplace safety, which requires the inclusion of all known hazards of the product or its ingredients regardless of the potential risk. The precautionary statements and warning 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	GHS Classification	%
Propylene glycol	57-55-6	200-338-0	Not Listed	Not Listed	20
Flunixin meglumine	42461-84-7	255-836-0	T+;R26 T;R25 Xi;R41 Xn;R48/22 ;R51/53	Acute Tox. 1 (H330) Acute Tox. 2 (H300) Eye Dam. 1 (H318) STOT RE 2 (H373) Aquatic Tox. 2 (H401 and H411)	5
PHENOL	108-95-2	203-632-7	T; R23/24/25 C; R34 Xn; R48/20/21/22 Muta. Cat. 3; R68	Acute Tox. 3 (H301) STOT RE 2 (H373) Muta. 2 (341) Skin Corr. 1B (H314) Acute Tox. 3 (H331)	<1
2,2 IMINODIETHANOL	111-42-2	203-868-0	Xn; R22-48/22 Xi; R38-41	Acute Tox. 4 (H302) STOT RE 2 (H373) Skin Irrit. 2 (H315) Eye Dam. 1 (H318)	<1
HYDROCHLORIC ACID	7647-01-0	231-595-7	T; R23 C; R35	Skin Corr.1B (H314) STOT SE 3 (H335)	**

Ingredient	CAS Number	EU EINECS/ELINCS List	EU Classification	GHS Classification	%
Sodium formaldehyde sulfoxylate dihydrate	6035-47-8	Not Listed	Not Listed	Not Listed	*
Disodium EDTA (dihydrate)	6381-92-6	Not Listed	Not Listed	Not Listed	*
Water for Injection	7732-18-5	231-791-2	Not Listed	Not Listed	*

**Additional Information:**

\* Proprietary

\*\* to adjust pH

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.

**For the full text of the R phrases and CLP/GHS abbreviations mentioned in this Section, see Section 16**



## SAFETY DATA SHEET

Material Name: Flunixamine (flunixin meglumine) Injectable  
Solution (U.S. only)  
Revision date: 24-Apr-2015

Page 4 of 14

Version: 3.0

### 4. FIRST AID MEASURES

#### Description of 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.

#### Most Important Symptoms and Effects, Both Acute and Delayed

- 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.
- Medical Conditions Aggravated by Exposure:** None known

#### Indication of the Immediate Medical Attention and Special Treatment Needed

- Notes to Physician:** None

### 5. FIRE-FIGHTING MEASURES

- Extinguishing Media:** Extinguish fires with CO2, extinguishing powder, foam, or water.

#### Special Hazards Arising from the Substance or Mixture

- Hazardous Combustion Products:** Formation of toxic gases is possible during heating or fire.
- Fire / Explosion Hazards:** Fine particles (such as dust and mists) may fuel fires/explosions.

#### Advice for Fire-Fighters

During all fire fighting activities, wear appropriate protective equipment, including self-contained breathing apparatus.

### 6. ACCIDENTAL RELEASE MEASURES

#### Personal Precautions, Protective Equipment and Emergency Procedures

Ensure adequate ventilation. Personnel involved in clean-up should wear appropriate personal protective equipment (see Section 8). Minimize exposure.

#### Environmental Precautions

Place waste in an appropriately labeled, sealed container for disposal. Care should be taken to avoid environmental release.

#### Methods and Material for Containment and Cleaning Up

- Measures for Cleaning / Collecting:** Contain the source of spill if it is safe to do so. Collect spill with absorbent material. Clean spill area thoroughly.
- 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.

## SAFETY DATA SHEET

Material Name: Flunixamine (flunixin meglumine) Injectable  
Solution (U.S. only)  
Revision date: 24-Apr-2015

Page 5 of 14

Version: 3.0

### 7. HANDLING AND STORAGE

#### Precautions for Safe Handling

When handling, use appropriate personal protective equipment (see Section 8). Keep away from heat, sparks, and flame. Use with adequate ventilation. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Avoid accidental injection. 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.

#### Conditions for Safe Storage, Including any Incompatibilities

**Storage Conditions:** Store as directed by product packaging. Keep containers tightly closed in a cool, well-ventilated place

**Storage Temperature:** 15-30°C (59-86°F)

**Incompatible Materials:** Acids, bases, and oxidizers

**Specific end use(s):** No data available

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Control Parameters

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

#### Propylene glycol

Australia TWA	150 ppm 474 mg/m <sup>3</sup> 10 mg/m <sup>3</sup>
Ireland OEL - TWAs	150 ppm 470 mg/m <sup>3</sup> 10 mg/m <sup>3</sup>
Latvia OEL - TWA	7 mg/m <sup>3</sup>
Lithuania OEL - TWA	7 mg/m <sup>3</sup>

#### PHENOL

ACGIH Threshold Limit Value (TWA)	5 ppm
ACGIH - Biological Exposure Limit:	250 mg/g creatinine
Australia TWA	1 ppm 4 mg/m <sup>3</sup>
Austria OEL - MAKs	2 ppm 8 mg/m <sup>3</sup>
Belgium OEL - TWA	2 ppm 8 mg/m <sup>3</sup>
Bulgaria OEL - TWA	8 mg/m <sup>3</sup> 2 ppm
Bulgaria - Biological Exposure Limit:	200 mg/L
Cyprus OEL - TWA	8 mg/m <sup>3</sup> 2 ppm
Czech Republic OEL - TWA	7.5 mg/m <sup>3</sup>
Denmark OEL - TWA	1 ppm 4 mg/m <sup>3</sup>

#### 2,2 IMINODIETHANOL

ACGIH Threshold Limit Value (TWA)	1 mg/m <sup>3</sup>
ACGIH - Skin Absorption Designation	Skin - potential significant contribution to overall exposure by the cutaneous route

## SAFETY DATA SHEET

Material Name: Flunixamine (flunixin meglumine) Injectable  
Solution (U.S. only)  
Revision date: 24-Apr-2015

Page 6 of 14

Version: 3.0

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Australia TWA	3 ppm 13 mg/m <sup>3</sup>
Austria OEL - MAKs	0.46 ppm 2 mg/m <sup>3</sup>
Belgium OEL - TWA	0.46 ppm 2 mg/m <sup>3</sup>
Bulgaria OEL - TWA	10 mg/m <sup>3</sup>
Czech Republic OEL - TWA	5 mg/m <sup>3</sup>
Denmark OEL - TWA	0.46 ppm 2 mg/m <sup>3</sup>
Estonia OEL - TWA	3 ppm 5 mg/m <sup>3</sup>
Finland OEL - TWA	0.46 ppm 2 mg/m <sup>3</sup>
France OEL - TWA	3 ppm 15 mg/m <sup>3</sup>
Germany (DFG) - MAK	1 mg/m <sup>3</sup>
Greece OEL - TWA	3 ppm 15 mg/m <sup>3</sup>
Ireland OEL - TWAs	1 mg/m <sup>3</sup>
Lithuania OEL - TWA	3 ppm 15 mg/m <sup>3</sup>
Poland OEL - TWA	9 mg/m <sup>3</sup>
Portugal OEL - TWA	2 mg/m <sup>3</sup>
Slovenia OEL - TWA	15 mg/m <sup>3</sup>
Spain OEL - TWA	0.46 ppm 2 mg/m <sup>3</sup>
Sweden OEL - TWAs	3 ppm 15 mg/m <sup>3</sup>
Switzerland OEL -TWAs	1 mg/m <sup>3</sup>

#### HYDROCHLORIC ACID

ACGIH Ceiling Threshold Limit:	2 ppm
Australia PEAK	5 ppm 7.5 mg/m <sup>3</sup>
Austria OEL - MAKs	5 ppm 8 mg/m <sup>3</sup>
Belgium OEL - TWA	5 ppm 8 mg/m <sup>3</sup>
Bulgaria OEL - TWA	5 ppm 8.0 mg/m <sup>3</sup>
Cyprus OEL - TWA	5 ppm 8 mg/m <sup>3</sup>
Czech Republic OEL - TWA	8 mg/m <sup>3</sup>
Estonia OEL - TWA	5 ppm 8 mg/m <sup>3</sup>
Germany - TRGS 900 - TWAs	2 ppm 3 mg/m <sup>3</sup>
Germany (DFG) - MAK	2 ppm 3.0 mg/m <sup>3</sup>
Greece OEL - TWA	5 ppm 7 mg/m <sup>3</sup>

## SAFETY DATA SHEET

Material Name: Flunixamine (flunixin meglumine) Injectable  
Solution (U.S. only)  
Revision date: 24-Apr-2015

Page 7 of 14

Version: 3.0

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Hungary OEL - TWA	8 mg/m <sup>3</sup>
Ireland OEL - TWAs	5 ppm 8 mg/m <sup>3</sup>
Italy OEL - TWA	5 ppm 8 mg/m <sup>3</sup>
Japan - OELs - Ceilings	5 ppm 7.5 mg/m <sup>3</sup>
Latvia OEL - TWA	5 ppm 8 mg/m <sup>3</sup>
Lithuania OEL - TWA	5 ppm 8 mg/m <sup>3</sup>
Luxembourg OEL - TWA	5 ppm 8 mg/m <sup>3</sup>
Malta OEL - TWA	5 ppm 8 mg/m <sup>3</sup>
Netherlands OEL - TWA	8 mg/m <sup>3</sup>
Vietnam OEL - TWAs	5 mg/m <sup>3</sup>
Poland OEL - TWA	5 mg/m <sup>3</sup>
Portugal OEL - TWA	5 ppm 8 mg/m <sup>3</sup>
Romania OEL - TWA	5 ppm 8 mg/m <sup>3</sup>
Slovakia OEL - TWA	5 ppm 8.0 mg/m <sup>3</sup>
Slovenia OEL - TWA	5 ppm 8 mg/m <sup>3</sup>
Spain OEL - TWA	5 ppm 7.6 mg/m <sup>3</sup>
Switzerland OEL -TWAs	2 ppm 3.0 mg/m <sup>3</sup>

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.

#### Flunixin meglumine

##### Zoetis OEB

OEB 2 (control exposure to the range of 100ug/m<sup>3</sup> to < 1000ug/m<sup>3</sup>)

#### Exposure Controls

##### Engineering Controls:

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

##### 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.

##### Skin:

Impervious protective clothing is recommended if skin contact with drug product is possible and for bulk processing operations.

## SAFETY DATA SHEET

Material Name: Flunixamine (flunixin meglumine) Injectable  
Solution (U.S. only)  
Revision date: 24-Apr-2015

Page 8 of 14

Version: 3.0

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Respiratory protection:** If airborne exposures are within or exceed the Occupational Exposure Band (OEB) range, wear an appropriate respirator with a protection factor sufficient to control exposures to the bottom of the OEB range. 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

<b>Physical State:</b>	Liquid	<b>Color:</b>	Clear, colorless
<b>Odor:</b>	Slight	<b>Odor Threshold:</b>	No data available.
<b>Molecular Formula:</b>	Mixture	<b>Molecular Weight:</b>	Mixture
<b>Solvent Solubility:</b>	No data available		
<b>Water Solubility:</b>	Soluble		
<b>pH:</b>	8.3		
<b>Melting/Freezing Point (°C):</b>	0°C (32°F) based on water		
<b>Boiling Point (°C):</b>	100°C (212°F) based on water		
<b>Partition Coefficient: (Method, pH, Endpoint, Value)</b>	No data available		
<b>Decomposition Temperature (°C):</b>	No data available.		
<b>Evaporation Rate (Gram/s):</b>	No data available		
<b>Vapor Pressure (kPa):</b>	18 mm of Hg (@ 20°C) based on water		
<b>Vapor Density (g/ml):</b>	>1		
<b>Relative Density:</b>	No data available		
<b>Specific Gravity:</b>	1.01		
<b>Viscosity:</b>	No data available		

**Flammability:**

<b>Autoignition Temperature (Solid) (°C):</b>	No data available
<b>Flammability (Solids):</b>	No data available
<b>Flash Point (Liquid) (°C):</b>	No data available
<b>Upper Explosive Limits (Liquid) (% by Vol.):</b>	No data available
<b>Lower Explosive Limits (Liquid) (% by Vol.):</b>	No data available

### 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	No data available
<b>Chemical Stability:</b>	Stable under normal conditions of use.
<b>Possibility of Hazardous Reactions</b>	
<b>Oxidizing Properties:</b>	No data available
<b>Conditions to Avoid:</b>	Fine particles (such as dust and mists) may fuel fires/explosions.
<b>Incompatible Materials:</b>	Acids, bases, and oxidizers
<b>Hazardous Decomposition Products:</b>	Thermal decomposition products may include oxides of carbon, nitrogen, and sulfur.

### 11. TOXICOLOGICAL INFORMATION

**Information on Toxicological Effects**

**General Information:** Toxicological properties of the formulation have not been investigated. The information in this section describes the potential hazards of the individual ingredients and the formulation.  
Routes of exposure: eye contact , skin contact

## SAFETY DATA SHEET

Material Name: Flunixin meglumine (flunixin meglumine) Injectable  
Solution (U.S. only)  
Revision date: 24-Apr-2015

Page 9 of 14

Version: 3.0

### 11. TOXICOLOGICAL INFORMATION

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

##### **HYDROCHLORIC ACID**

Rat Oral LD 50 238-277 mg/kg

##### **Flunixin meglumine**

Rat Inhalation LC50 < 0.52 mg/L

Rat Oral LD50 53-157mg/kg

##### **Propylene glycol**

Rat Oral LD 50 22,000 mg/kg

Mouse Oral LD 50 24,900mg/kg

Rabbit Dermal LD 50 20,800mg/kg

##### **PHENOL**

Rat Oral LD50 317 mg/kg

Rat Dermal LD50 525mg/kg

Rabbit Dermal LD50 630mg/kg

Mouse Oral LD50 270mg/kg

##### **2,2 IMINODIETHANOL**

Rat Oral LD50 710 mg/kg

Rabbit Dermal LD50 11.9ml/kg

#### **Inhalation Acute Toxicity**

May be harmful if inhaled. May cause respiratory tract and mucous membrane irritation.

#### **Ingestion Acute Toxicity**

Harmful if swallowed.

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

##### **Flunixin meglumine**

Skin Irritation Rabbit Mild

Eye Irritation Rabbit Severe

Skin Sensitization - GPMT Negative

##### **Propylene glycol**

Skin Irritation Rabbit Mild

Eye Irritation Rabbit Mild

##### **2,2 IMINODIETHANOL**

Eye Irritation Rabbit Severe

Skin Irritation Rabbit Moderate

**Irritation / Sensitization Comments:** May cause irreversible eye damage.

**Skin Irritation / Sensitization** May cause skin irritation.

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

##### **Flunixin meglumine**

1 Year(s) Rat Oral 1 mg/kg/day NOEL Gastrointestinal System, Kidney

## SAFETY DATA SHEET

Material Name: Flunixin meglumine (flunixin meglumine) Injectable  
Solution (U.S. only)  
Revision date: 24-Apr-2015

Page 10 of 14

Version: 3.0

### 11. TOXICOLOGICAL INFORMATION

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

##### **Flunixin meglumine**

Fertility and Embryonic Development Rat Oral 2-12 mg/kg NOEL Not teratogenic  
Reproductive & Fertility Rat Oral 3-9 mg/kg NOEL Maternal Toxicity

##### **PHENOL**

2 Generation Reproductive Toxicity Rat Oral 1000 ppm NOAEL No effects at maximum dose  
Embryo / Fetal Development Rat Oral 120 mg/kg LOAEL Fetotoxicity, Not Teratogenic  
Fertility and Embryonic Development Rat Oral 53 mg/kg LOAEL Maternal Toxicity, Fetotoxicity, Not Teratogenic  
Embryo / Fetal Development Rat Intraperitoneal 200 mg/kg NOAEL No effects at maximum dose

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

##### **Flunixin meglumine**

Bacterial Mutagenicity (Ames) Bacteria Negative  
Micronucleus Mouse Negative  
Chromosome Aberration Chinese Hamster Ovary (CHO) cells Positive  
Mammalian Cell Mutagenicity Mouse Lymphoma Positive

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

##### **Flunixin meglumine**

104 Week(s) Rat Oral, in feed 8 mg/kg/day NOEL Not carcinogenic  
97 Week(s) Mouse Oral, in feed 6 mg/kg/day NOEL Not carcinogenic

##### **PHENOL**

103 Week(s) Rat Oral 5,000 ppm NOAEL Not carcinogenic  
103 Week(s) Mouse Oral 5,000 ppm NOAEL Not carcinogenic

**Carcinogen Status:** See below

##### **HYDROCHLORIC ACID**

**IARC:** Group 3 (Not Classifiable)

##### **2,2 IMINODIETHANOL**

**IARC:** Group 2B (Possibly Carcinogenic to Humans)

#### Product Level Toxicity Data

Acute Toxicity Estimate (ATE), oral 1000 mg/kg  
Acute Toxicity Estimate (ATE), inhalation (dust/mist) 10 mg/l  
Acute Toxicity Estimate (ATE), dermal >5000 mg/kg

## SAFETY DATA SHEET

Material Name: Flunixamine (flunixin meglumine) Injectable  
Solution (U.S. only)  
Revision date: 24-Apr-2015

Page 11 of 14

Version: 3.0

## 12. ECOLOGICAL INFORMATION

**Environmental Overview:** Environmental properties of the formulation have not been investigated. The following information is available for the individual ingredients. may be harmful to aquatic organisms. Releases to the environment should be avoided.

**Toxicity:**

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

### Flunixin meglumine

*Lepomis macrochirus* (Bluegill Sunfish) LC50 96 Hours 46 mg/L  
*Salmo gairdneri* (Trout) LC50 96 Hours 9.2 mg/L  
*Daphnia Magna* (Water Flea) EC50 48 Hours 25 mg/L  
Algae IC50 72 Hours 36-120 mg/L

### PHENOL

*Selenastrum capricornutum* (Green Alga) EC50 96 Hours 150 mg/L  
*Pimephales promelas* (Fathead Minnow) LC50 96 Hours 24 mg/L  
*Oncorhynchus mykiss* (Rainbow Trout) LC50 96 Hours 8.9 mg/L  
*Lepomis macrochirus* (Bluegill Sunfish) LC50 96 Hours 23.88 mg/L  
*Daphnia magna* (Water Flea) LC50 48 Hours 13 mg/L

**Persistence and Degradability:** No data available

**Bio-accumulative Potential:** No data available

**Mobility in Soil:** No data available

## 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.

U.S. DOT Reportable Quantity (RQ), 49 CFR 172.101 Appendix A:

2,2 IMINODIETHANOL

PZ01728



## SAFETY DATA SHEET

Material Name: Flunixinamine (flunixin meglumine) Injectable  
Solution (U.S. only)  
Revision date: 24-Apr-2015

Page 12 of 14

Version: 3.0

CERCLA/SARA Hazardous Substances  
and their Reportable Quantities: 100 lb  
45.4 kg

HYDROCHLORIC ACID  
CERCLA/SARA Hazardous Substances  
and their Reportable Quantities: 5000 lb  
2270 kg

### 15. REGULATORY INFORMATION

#### Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

##### Canada - WHMIS: Classifications

###### WHMIS hazard class:

Class D, Division 2, Subdivision A

Class D, Division 2, Subdivision B

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



##### Propylene glycol

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	200-338-0

##### Flunixin meglumine

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Australia (AICS):	Present
Standard for the Uniform Scheduling for Drugs and Poisons:	Schedule 4
EU EINECS/ELINCS List	255-836-0

##### PHENOL

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
EU EINECS/ELINCS List	203-632-7

##### 2,2 IMINODIETHANOL

CERCLA/SARA 313 Emission reporting	1.0 %
CERCLA/SARA Hazardous Substances and their Reportable Quantities:	100 lb 45.4 kg
California Proposition 65	carcinogen initial date 6/22/12
Inventory - United States TSCA - Sect. 8(b)	Present

## SAFETY DATA SHEET

Material Name: Flunixamine (flunixin meglumine) Injectable  
Solution (U.S. only)  
Revision date: 24-Apr-2015

Page 13 of 14

Version: 3.0

### 15. REGULATORY INFORMATION

Australia (AICS):	Present
Standard for the Uniform Scheduling	Schedule 5
for Drugs and Poisons:	Schedule 6
EU EINECS/ELINCS List	203-868-0

#### HYDROCHLORIC ACID

CERCLA/SARA 313 Emission reporting	1.0 %
CERCLA/SARA Hazardous Substances	5000 lb
and their Reportable Quantities:	2270 kg
CERCLA/SARA - Section 302 Extremely Hazardous	500 lb
TPQs	
CERCLA/SARA - Section 302 Extremely Hazardous	5000 lb
Substances EPCRA RQs	
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
Standard for the Uniform Scheduling	Schedule 5
for Drugs and Poisons:	Schedule 6
EU EINECS/ELINCS List	231-595-7

#### Sodium formaldehyde sulfoxylate dihydrate

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
EU EINECS/ELINCS List	Not Listed

#### Disodium EDTA (dihydrate)

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Australia (AICS):	Present
EU EINECS/ELINCS List	Not Listed

#### Water for Injection

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
REACH - Annex IV - Exemptions from the	Present
obligations of Register:	
EU EINECS/ELINCS List	231-791-2

### 16. OTHER INFORMATION

Text of R phrases and GHS Classification abbreviations mentioned in Section 3

## SAFETY DATA SHEET

**Material Name:** Flunixinamine (flunixin meglumine) Injectable  
**Solution (U.S. only)**  
**Revision date:** 24-Apr-2015

**Page 14 of 14**

**Version: 3.0**

---

H302 - Harmful if swallowed  
H373 - May cause damage to organs through prolonged or repeated exposure  
H315 - Causes skin irritation  
H318 - Causes serious eye damage  
H330 - Fatal if inhaled  
H300 - Fatal if swallowed  
H401 - Toxic to aquatic life  
H411 - Toxic to aquatic life with long lasting effects  
H314 - Causes severe skin burns and eye damage  
H335 - May cause respiratory irritation  
H301 - Toxic if swallowed  
H341 - Suspected of causing genetic defects  
H331 - Toxic if inhaled

R22 - Harmful if swallowed.  
R26 - Very toxic by inhalation.  
R34 - Causes burns.  
R35 - Causes severe burns.  
R38 - Irritating to skin.  
R41 - Risk of serious damage to eyes.  
R68 - Possible risks of irreversible effects.  
R23/24/25 - Toxic by inhalation, in contact with skin and if swallowed.  
R48/20/21/22 - Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.  
R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Data Sources:** The data contained in this SDS may have been gathered from confidential internal sources, raw material suppliers, or from the published literature.

**Reasons for Revision:** Updated Section 2 - Hazard Identification. Updated Section 11 - Toxicology Information.  
Updated Section 15 - Regulatory Information. Updated Section 10 - Stability and Reactivity.  
Updated Section 9 - Physical and Chemical Properties.

**Prepared by:** Toxicology and Hazard Communication  
Zoetis Global Risk Management

Zoetis Inc. believes that the information contained in this 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**