SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/ UNDERTAKING

Contact information

General

Committed to Quality, Delivering Affordability,

One Monument Square, Suite 400, Portland, ME 04101 Main: +1 (207) 828-0880 (Available M-F, 8AM-5PM EST)

Fax: +1 (207) 828-0805

E-mail: customersupport@putneyvet.com

Emergency +1 (866) 683-0660 (*General inquiries*)

telephone number +1 (866) 683-0660 (Veterinary support & adverse drug events/complaints)

Product identifier Carprofen Sterile Injectable

Synonyms Carprofen

Trade names Carprofen Sterile Injectable Solution

Chemical family Mixture - contains a substituted carbazole

Relevant identified uses of the substance or mixture and uses advised against Bulk formulated pharmaceutical mixture/Formulated pharmaceutical product/ mixture packaged in final form for patient use; contains carprofen - a non-steroidal

anti-inflammatory medication.

Note This SDS is written to address potential worker health and safety issues associated

with the handling of the formulated drug product.

Issue Date 17 December 2014

SECTION 2 - HAZARDS IDENTIFICATION

Classification of the substance or mixture

Drugs in the finished state and intended for the final user are not subject to labeling in the US, EU or Canada. Please consult the prescribing/packaging information. The classification and labeling listed below is for bulk Carprofen Sterile Injectable Solution.

Regulation (EC) 1272/ 2008 [GHS]

Skin Sensitizer - Category 1. Specific Target Organ Toxicity (repeated exposure) - Category 2.

Directive 67/548/EEC or 1999/45/EC

Xi - R43; Xn - R48/22

Label elements

Revision date: 17 December 2014, Version: 1.1.0 Page 1 of 11

CLP/GHS hazard pictogram





CLP/GHS signal

word

Warning

CLP/GHS hazard statements

H317 - May cause allergic skin reaction. H373 - May cause damage to gastrointestinal (GI) tract through prolonged or repeated exposure.

CLP/GHS precautionary statements P260 - Do not breathe dust. P272 - Contaminated work clothing should not be allowed out of the workplace. P280 - Wear protective gloves/eye protection/face protection. P302 + P352 - If on skin: Wash with plenty of soap and water. P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention. P314 - Get medical advice/attention if you feel unwell. P363 - Wash contaminated clothing before reuse. P501 - Dispose of contents/container to location in accordance with local/regional/national/international regulations.

EU symbol/indication of danger



Xi - Irritant; Xn - Harmful

Risk (R) Phrase(s)

R43 - May cause sensitization by skin contact. R48/22 - Harmful: danger of serious damage to health by prolonged exposure if swallowed.

Safety Advice

S24 - Avoid contact with skin. S36/37 - Wear suitable protective clothing and gloves.

Other hazards

Contains carprofen - a non-steroidal anti-inflammatory drug (NSAID). Common adverse effects with therapeutic use of NSAIDs include mild gastrointestinal disturbances. Carprofen has been reported to cause photoallergic contact dermatitis following occupational exposure.

US Signal word

Warning

US Hazard overview

Contains carprofen. May cause an allergic skin reaction. May cause gastrointestinal tract damage based on animal data.

Note

This mixture is classified as dangerous according to directive 1999/45/EC, Regulation EC No 1272/2008 (EU CLP) and applicable US communication regulations. See Section 16 for full text of EU and GHS classifications. The EU symbol/indicator of danger, R Phrases and Safety Advice are based on Directive 67/548/EEC or 1999/45/EC. The GHS classifications are based on Regulation (EC) 1272/2008.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredient</u>	CAS#	EINECS/	<u>Amount</u>	EU Classification	<u>GHS</u>
		ELINCS#			Classification
Carprofen	52263-47-5	N/A	<10%	Toxic - T: R25,	ATO3: H301;
				R48/22; Irritant -	STOT-R1:H372;
				Xi: R43	SS1: H317

Note

The ingredient(s) listed above are considered dangerous/hazardous or are the active ingredient. The remaining components are non-hazardous and/or present at amounts below reportable limits. See Section 16 for full text of EU and GHS classifications. The EU classification is based on Directive 67/548/EEC and the GHS classification is based on Regulation (EC) 1272/2008.

SECTION 4 - FIRST AID MEASURES

Description	of	first	aid
measures			

Immediate Medical Attention Needed No. If exposed or concerned: Get medical advice/attention.

Eye Contact

If easy to do, remove contact lenses, if worn. Immediately flush eyes with copious quantities of water for at least 15 minutes. If irritation occurs or persists, notify medical personnel and supervisor.

Skin Contact

Wash exposed area with soap and water and remove contaminated clothing/shoes. If irritation occurs or persists, notify medical personnel and supervisor.

Inhalation

Immediately move exposed subject to fresh air. If not breathing, give artificial respiration. If breathing is labored, administer oxygen. Immediately notify medical personnel and supervisor.

Ingestion

Do not induce vomiting unless directed by medical personnel. Do not give anything to drink unless directed by medical personnel. Never give anything by mouth to an unconscious person. Notify medical personnel and supervisor.

Protection of first aid responders

See Section 8 for Exposure Controls/Personal Protection recommendations.

Most important symptoms and effects, both acute and delayed See Sections 2 and 11.

Indication of immediate medical attention and special treatment needed, if necessary Medical conditions aggravated by exposure: None known or reported. Treat symptomatically and supportively.

Revision date: 17 December 2014, Version: 1.1.0

SECTION 5 - FIREFIGHTING MEASURES

Extinguishing media Use water spray (fog), foam, dry powder, or carbon dioxide, as appropriate for

surrounding fire and materials.

Specific hazards arising from the substance or mixture

No information identified. May emit carbon monoxide, carbon dioxide, oxides of nitrogen, hydrochloric acid, or other chlorine-, magnesium-, and sodium-containing

compounds.

Flammability/ Explosivity No explosivity or flammability data identified. As product is an aqueous solution,

it is not expected to be flammable or explosive.

Advice for firefighters Wear full protective clothing and a self-contained breathing apparatus with a full

facepiece operated in the pressure demand or other positive pressure mode.

Decontaminate all equipment after use.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures If product is released or spilled, take proper precautions to minimize exposure by using appropriate personal protective equipment (see Section 8). Area should be adequately ventilated. Do not breathe mist/spray.

Environmental precautions

Do not empty into drains. Avoid release to the environment.

Methods and material for containment and cleaning up Surround spill with absorbents and place a damp cloth or towel over the area. Capture spilled liquid onto spill absorbents. Gather and pick up all pieces of broken glass using a cloth or towel. Place spill materials into a leak-proof container for disposal in accordance with applicable waste disposal regulations

(see section 13). Decontaminate the area twice.

Reference to other sections

See Sections 8 and 13 for more information.

SECTION 7 - HANDLING AND STORAGE

Precautions for safe handling

Avoid breathing mist/spray.

Conditions for safe storage including any incompatibilities Store under refrigeration 2°-8°C (36°-46°F), Once broached, product may be

stored at 25°C (77°F) for 28 days. Protect from freezing.

Specific end use(s) No information identified.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters/ Occupational Exposure Limit Values

Compound	<u>Issuer</u>	<u>Type</u>	<u>OEL</u>
Carprofen			

Exposure/Engineering controls

None required for normal handling of packaged product. If vials are crushed or broken, or if handling bulk formulation: Control exposures to below the OEL (if available). Otherwise, selection and use of containment devices and personal protective equipment should be based on a risk assessment of exposure potential. Use local exhaust and/or enclosure at aerosol/mist-generating points. Emphasis is to be placed on closed material transfer systems and process containment, with limited open handling. High-energy operations should be done within an approved emission control or containment system.

Respiratory protection

None required for normal handling of packaged product. If handling bulk formulation: Choice of respiratory protection should be appropriate to the task and the level of existing engineering controls. For routine handling tasks, an approved and properly fitted air-purifying respirator with appropriate HEPA filters should provide ancillary protection based on the known or foreseeable limitations of existing engineering controls. Use a powered air-purifying respirator equipped with appropriate HEPA filters or combination filters or a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, when exposure levels are not known, or in any other circumstances where a lower level of respiratory protection may not provide adequate protection.

Hand protection

None required for normal handling of packaged product. Wear nitrile or other impervious gloves if skin contact with formulated mixture is possible. Double gloves may be considered.

Skin protection

Wear appropriate gloves, lab coat, or other protective overgarment if skin contact is likely. Base the choice of skin protection on the job activity, potential for skin contact and solvents and reagents in use.

Eve/face protection

Wear safety glasses with side shields, chemical splash goggles, or full face shield, if necessary. Base the choice of protection on the job activity and potential for contact with eyes or face. An emergency eye wash station should be available.

Environmental Exposure Controls

Avoid release to the environment and operate within closed systems wherever practicable. Air and liquid emissions should be directed to appropriate pollution control devices. In case of spill, do not release to drains. Implement appropriate and effective emergency response procedures to prevent release or spread of contamination and to prevent inadvertent contact by personnel.

Other protective measures

Wash hands in the event of contact with this substance, especially before eating, drinking or smoking. Protective equipment is not to be worn outside the work area (e.g., in common areas or out-of-doors).

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance Liquid

Color No information identified.

Odor No information identified.

Odor threshold No information identified.

pH No information identified.

Melting point/ freezing point No information identified.

Initial boiling point and boiling range

No information identified.

Flash point No information identified.

Evaporation rate No information identified.

Flammability (solid,

gas)

No information identified.

Upper/lower flammability or explosive limits

No information identified.

Vapor pressure No information identified.

Vapor density No information identified.

Relative density No information identified.

Water solubility No information identified.

Solvent solubility No information identified.

Partition coefficient (n-octanol/water)

No information identified.

Auto-ignition temperature

No information identified.

Decomposition

No information identified.

temperature

Viscosity

No information identified.

Explosive properties No information identified.

Oxidizing properties No information identified.

Other information

Revision date: 17 December 2014, Version: 1.1.0

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES ...continued

Molecular weight Not applicable (Mixture).

Molecular formula Not applicable (Mixture).

SECTION 10 - STABILITY AND REACTIVITY

Reactivity No information identified.

Chemical stability Chemically stable; pharmacological stability not guaranteed beyond expiration

date imprinted on package.

Possibility of hazardous

reactions

Not expected to occur.

Conditions to avoid No information identified.

Incompatible materials No information identified.

Hazardous No information identified.

decomposition products

SECTION 11 - TOXICOLOGICAL INFORMATION

Note Data for the mixture were limited. Therefore, data describing the active

ingredient(s) and/or the individual ingredients were included where

applicable.

Information on toxicological effects

Route of entryNone likely for packaged product. Bulk solution may be absorbed by inhalation,

skin contact and ingestion.

Acute toxicity

<u>Compound</u>	<u>Type</u>	Route	<u>Species</u>	<u>Dose</u>	
Carprofen	LD_{50}	Oral	Mice	282 mg/kg	
	LD ₅₀	Oral	Rats	149 mg/kg	

Irritation/Corrosion Carprofen is non-irritating to rabbits.

Sensitization Carprofen is considered a dermal sensitizer, based on effects reported following

occupational exposure. It was not a sensitizer in guinea pigs.

STOT-single exposure No data identified.

STOT-repeated exposure/Repeat-dose toxicity

In oral rat studies ≥6 months duration, doses of 10 mg/kg/day caused mortality, intestinal ulceration, and peritonitis. The NOAEL in a 2-year rat study was 1 mg/kg/

day.

SECTION 11 - TOXICOLOGICAL INFORMATION ...continued

Reproductive toxicity Carprofen caused no adverse effects in a number of laboratory species. Details

were not identified.

Developmental

toxicity

Carprofen was not teratogenic or fetotoxic in animal studies. Details were not

identified.

Genotoxicity Carprofen was non-mutagenic in the Ames bacterial mutagenicity assay, in

mammalian cell mutagenicity assays, and in vivo mutagenicity assays. It was non-

clastogenic in an in vitro mammalian cell assay.

Carrinogenicity Carprofen was non-carcinogenic in 2-year rat and mouse studies. No components

of the product present at levels greater than or equal to 0.1% are listed by NTP,

IARC, ACGIH or OSHA as a carcinogen.

Aspiration hazard No data available.

Human health data See "Section 2 - Other Hazards"

SECTION 12 - ECOLOGICAL INFORMATION

Toxicity

<u>Compound</u> <u>Type</u> <u>Species</u> <u>Concentration</u>

Carprofen -- -- --

Persistence and

Degradability

No data available.

Bioaccumulative

potential

No data available.

Mobility in soil No data available.

Results of PBT and vPvB assessment

Not performed.

Other adverse effects

No data available.

Note

The environmental characteristics of this product/mixture have not been fully

investigated. Releases to the environment should be avoided.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste treatment methods

Dispose of wastes in accordance to prescribed federal, state, and local guidelines, e.g., appropriately permitted chemical waste incinerator. Do not send down the drain or flush down the toilet. All wastes containing the material should be properly labeled. Rinse waters resulting from spill cleanups should be discharged in an environmentally safe manner, e.g., appropriately permitted municipal or onsite wastewater treatment facility.

SECTION 14 - TRANSPORT INFORMATION

Transport Based on the available data, this product/mixture is not regulated as a hazardous

material/dangerous good under EU ADR/RID, US DOT, Canada TDG, IATA, or

IMDG.

UN number None assigned.

UN proper shipping

name

None assigned.

Transport hazard classes and packing

group

None assigned.

Environmental hazards

Based on the available data, this product/mixture is not regulated as an

environmental hazard or a marine pollutant.

Special precautions for

users

Avoid release to the environment.

Transport in bulk according to Annex II of MARPOL73/78 and the

IBC Code

Not applicable.

SECTION 15 - REGULATORY INFORMATION

Safety, health and environmental

regulations/legislation specific for the

substance or mixture

This SDS complies with the requirements under US, EU and GHS (EU CLP -Regulation EC No 1272/2008) guidelines. Consult your local/regional authorities

for more information.

Chemical safety

assessment

Not conducted.

OSHA Hazardous

Yes. Warning. Contains carprofen. May cause an allergic skin reaction. May cause

gastrointestinal tract damage based on animal data.

WHMIS classification

Drugs are not subject to WHMIS. This product has been classified in accordance

with the hazard criteria of the Controlled Products Regulations and the SDS

contains all of the information required by those regulations.

TSCA status Drugs are exempt from TSCA.

SARA section 313

Not listed.

California proposition 65

Not listed.

Additional information

No other information identified.

Page 9 of 11 Revision date: 17 December 2014, Version: 1.1.0

SECTION 16 - OTHER INFORMATION

Full text of R phrases and EU Classifications

T - Toxic. R25 - Toxic if swallowed. Xi - Irritant. R43 - May cause sensitization by skin contact. Xn - Harmful. R48/22 - Danger of serious damage to health by prolonged exposure.

Full text of H phrases, P phrases and GHS classification

ATO3 - Acute Toxicity (Oral) Category 3. H301 - Toxic if swallowed. STOT-R1 - Specific Target Organ Toxicity Following Repeat Exposure Category 1. H372 - Causes damage to GI tract through prolonged or repeated exposure. STOT-R2 - Specific Target Organ Toxicity Following Repeated Exposure Category 2. H373 - May cause damage to GI tract through prolonged or repeated exposure. SS1 - Skin sensitizer Category 1. H317 - May cause an allergic skin reaction.

Sources of data

Information from published literature and internal company data.

Abbreviations

ACGIH - American Conference of Governmental Industrial Hygienists; ADR/RID -European Agreement Concerning the International Carriage of Dangerous Goods by Road/Rail; AIHA - American Industrial Hygiene Association; CAS# - Chemical Abstract Services Number; CLP - Classification, Labelling, and Packaging of Substances and Mixtures; DNEL - Derived No Effect Level; DOT - Department of Transportation; EINECS - European Inventory of New and Existing Chemical Substances; ELINCS - European List of Notified Chemical Substances; EU -European Union; GHS - Globally Harmonized System of Classification and Labeling of Chemicals; IARC - International Agency for Research on Cancer; IDLH - Immediately Dangerous to Life or Health; IATA - International Air Transport Association; IMDG - International Maritime Dangerous Goods; LOEL -Lowest Observed Effect Level; LOAEL - Lowest Observed Adverse Effect Level; NIOSH - The National Institute for Occupational Safety and Health; NOEL - No Observed Effect Level; NOAEL - No Observed Adverse Effect Level; NTP -National Toxicology Program; OEL - Occupational Exposure Limit; OSHA -Occupational Safety and Health Administration; PNEC - Predicted No Effect Concentration; SARA - Superfund Amendments and Reauthorization Act; STEL -Short Term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA -Toxic Substances Control Act; TWA - Time Weighted Average; WHMIS -Workplace Hazardous Materials Information System

Revisions

This is the first version of this SDS.

Disclaimer

The above information is based on data available to us and is believed to be correct. Since the information may be applied under conditions beyond our control and with which we may be unfamiliar, we do not assume any responsibility for the results of its use and all persons receiving it must make their own determination of the effects, properties and protections which pertain to their particular conditions.

No representation, warranty, or guarantee, express or implied (including a warranty of fitness or merchantability for a particular purpose), is made with respect to the materials, the accuracy of this information, the results to be obtained from the use thereof, or the hazards connected with the use of the material. Caution should be used in the handling and use of the material because it is a pharmaceutical product. The above information is offered in good faith and with the belief that it is

Revision date: 17 December 2014, Version: 1.1.0 Page 10 of 11

SECTION 16 - OTHER INFORMATION ...continued

Disclaimer ...continued

accurate. As of the date of issuance, we are providing all information relevant to the foreseeable handling of the material. However, in the event of an adverse incident associated with this product, this Safety Data Sheet is not, and is not intended to be, a substitute for consultation with appropriately trained personnel.