MATERIAL SAFETY DATA SHEET

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

Pfizer Animal Health
Pfizer Inc
235 East 42nd Street
New York, NY 10017
Poison Control Center Phone: 1-866-531-8896
Technical Services Phone: 1-800-366-5288
Emergency telephone number:
CHEMTREC (24 hours): 1-800-424-9300
Contact E-Mail: pfizer-MSDS@pfizer.com

Pfizer Ltd
Ramsgate Road
Sandwich, Kent
CT13 9NJ
United Kingdom
+00 44 (0)1304 616161
Emergency telephone number:
International CHEMTREC (24 hours): +1-703-527-3887

Material Name: DECTOMAX (Doramectin) Pour-On Solution

Trade Name: DECTOMAX
Chemical Family: Mixture
Intended Use: Veterinary product used as antiparasitic, endectocide

2. HAZARDS IDENTIFICATION

Appearance: Clear, colorless solution or clear, blue solution
Signal Word: WARNING

Statement of Hazard:
Highly flammable liquid and vapor.
Causes eye irritation.
Vapors may cause drowsiness and irritation of the eyes or respiratory tract.
Very toxic to aquatic life with long lasting effects.

Additional Hazard Information:

Short Term: May be absorbed through the skin and cause systemic effects. Breathing high vapor concentrations may cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache, nausea, and loss of coordination. Continued inhalation may result in unconsciousness and death. May be harmful to aquatic organisms.

Long Term: Prolonged or repeated contact may cause defatting and drying of the skin. Repeat-dose studies in animals have shown a potential to cause adverse effects on the developing fetus.

EU Indication of danger:
Flammable
Irritant
Dangerous for the Environment

EU Hazard Symbols:

EU Risk Phrases:

2. HAZARDS IDENTIFICATION

R11 - Highly flammable.
R36 - Irritating to eyes.
R67 - Vapors may cause drowsiness and dizziness.
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Australian Hazard Classification (NOHSC): Hazardous Substance. Dangerous Goods.

Note: This document has been prepared in accordance with standards for workplace safety, which require the inclusion of all known hazards of the product or its ingredients regardless of the potential risk. The precautionary statements and warnings included may not apply in all cases. Your needs may vary depending upon the potential for exposure in your workplace.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous

Ingredient	CAS Number	EU EINECS/ELINCS List	EU Classification	%
Doramectin	117704-25-3	Not Listed	Xn;R22 N;R50/53 Repr.Cat.3;R63 R64	0.5
Triethanolamine	102-71-6	203-049-8	Not Listed	*
Isopropyl alcohol	67-63-0	200-661-7	F;R11 R67 Xi;R36	79

Ingredient	CAS Number	EU EINECS/ELINCS List	EU Classification	%
Cetearyl octanoate	59130-69-7	261-619-1	Not Listed	*
FD & C Blue No. 1	3844-45-9	223-339-8	Not Listed	*
Water for injection	7732-18-5	231-791-2	Not Listed	*

Additional Information: * Proprietary
Ingredient(s) indicated as hazardous have been assessed under standards for workplace safety.

For the full text of the R phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES

Eye Contact: Flush with water while holding eyelids open for at least 15 minutes. Seek medical attention immediately.

Skin Contact: Remove clothing and wash affected skin with soap and water. If irritation occurs or persists, get medical attention.

Ingestion: Never give anything by mouth to an unconscious person. Wash out mouth with water. Do not induce vomiting unless directed by medical personnel. Seek medical attention immediately.

Inhalation: Remove to fresh air and keep patient at rest. Seek medical attention immediately.

Symptoms and Effects of Exposure: For information on potential signs and symptoms of exposure, See Section 2 - Hazards Identification and/or Section 11 - Toxicological Information.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Carbon dioxide, dry chemical, or foam

Hazardous Combustion Products: Emits toxic fumes of carbon monoxide, carbon dioxide, and nitrogen oxides.

Fire Fighting Procedures: Wear approved positive pressure, self-contained breathing apparatus and full protective turn out gear. Evacuate area and fight fire from a safe distance. Dike and collect water used to fight fire.

Fire / Explosion Hazards: Flammable liquid and vapor. Vapors will form flammable or explosive mixtures with air at room temperature.

6. ACCIDENTAL RELEASE MEASURES

Health and Safety Precautions: Personnel involved in clean-up should wear appropriate personal protective equipment (see Section 8). Minimize exposure. Eliminate all sources of ignition and ventilate area using explosion-proof equipment.

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.

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

Additional Consideration for Large Spills: Non-essential personnel should be evacuated from affected area. Report emergency situations immediately. Clean up operations should only be undertaken by trained personnel.

7. HANDLING AND STORAGE

General Handling: Eliminate possible ignition sources (e.g., heat, sparks, flame, impact, friction, electricity), and follow appropriate grounding and bonding procedures. Use only in a well-ventilated area. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. When handling, use appropriate personal protective equipment (see Section 8). Wash hands and any exposed skin after removal of PPE. Releases to the environment should be avoided. Refer to Section 12 - Ecological Information, for information on potential effects on the environment. Review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure or environmental releases. Potential points of process emissions of this material to the atmosphere should be controlled with dust collectors, HEPA filtration systems or other equivalent controls.

Storage Conditions: Store as directed by product packaging.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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

Doramectin

Pfizer OEL TWA-8 Hr:	200µg/m^3

Triethanolamine

ACGIH Threshold Limit Value (TWA)	5 mg/m^3
Australia TWA	5 mg/m^3
Austria OEL - MAKs	0.8 ppm 5 mg/m^3

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Belgium OEL - TWA	5 mg/m^3
Czech Republic OEL - TWA	5 mg/m^3
Denmark OEL - TWA	0.5 ppm 3.1 mg/m^3
Estonia OEL - TWA	5 mg/m^3
Finland OEL - TWA	5 mg/m^3
Germany (DFG) - MAK	5 mg/m^3
Ireland OEL - TWAs	5 mg/m^3
Lithuania OEL - TWA	5 mg/m^3
Portugal OEL - TWA	5 mg/m^3
Slovenia OEL - TWA	5 mg/m^3
Spain OEL - TWA	5 mg/m^3
Sweden OEL - TWAs	5 mg/m^3

Isopropyl alcohol

ACGIH Threshold Limit Value (TWA)	200 ppm
ACGIH Threshold Limit Value (STEL)	400 ppm
ACGIH - Biological Exposure Limit:	40 mg/L
Australia STEL	500 ppm 1230 mg/m^3
Australia TWA	400 ppm 983 mg/m^3
Austria OEL - MAKs	200 ppm 500 mg/m^3
Belgium OEL - TWA	200 ppm 500 mg/m^3
Bulgaria OEL - TWA	980.0 mg/m^3
Czech Republic OEL - TWA	500 mg/m^3
Denmark OEL - TWA	200 ppm 490 mg/m^3
Estonia OEL - TWA	150 ppm 350 mg/m^3
Finland OEL - TWA	200 ppm 500 mg/m^3
Germany - TRGS 900 - TWAs	200 ppm 500 mg/m^3
Germany (DFG) - MAK	200 ppm 500 mg/m^3
Germany - Biological Exposure Limit:	50 mg/L
Greece OEL - TWA	400 ppm 980 mg/m^3
Hungary OEL - TWA	500 mg/m^3
Ireland OEL - TWAs	200 ppm
Japan - OELs - Ceilings	400 ppm 980 mg/m^3
Latvia OEL - TWA	350 mg/m^3
Lithuania OEL - TWA	150 ppm 350 mg/m^3
OSHA - Final PELS - TWAs:	400 ppm 980 mg/m^3
Poland OEL - TWA	900 mg/m^3
Portugal OEL - TWA	200 ppm

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Romania OEL - TWA	81 ppm 200 mg/m^3
Romania - Biological Exposure Limit:	50 mg/L
Slovakia OEL - TWA	200 ppm 500 mg/m^3
Slovenia OEL - TWA	200 ppm 500 mg/m^3
Spain OEL - TWA	200 ppm 500 mg/m^3
Spain - Biological Exposure Limit:	40 mg/L
Sweden OEL - TWAs	150 ppm 350 mg/m^3

Analytical Method: Analytical method available for doramectin. Contact Pfizer Inc for further information.
Engineering Controls: Engineering controls should be used as the primary means to control exposures. General room ventilation is adequate unless the process generates dust, mist or fumes. Keep airborne contamination levels below the exposure limits listed above in this section.
Environmental Exposure Controls: Refer to specific Member State legislation for requirements under Community environmental legislation.
Personal Protective Equipment: Refer to applicable national standards and regulations in the selection and use of personal protective equipment (PPE).

Hands: Impervious gloves are recommended if skin contact with drug product is possible and for bulk processing operations.
Eyes: Wear safety glasses or goggles if eye contact is possible.
Skin: Impervious protective clothing is recommended if skin contact with drug product is possible and for bulk processing operations.
Respiratory protection: If the applicable Occupational Exposure Limit (OEL) is exceeded, wear an appropriate respirator with a protection factor sufficient to control exposures to below the OEL.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
Odor: Characteristic
Molecular Weight: Mixture
Color: Colorless or Blue
Molecular Formula: Mixture

Boiling Point (°C): 84
Specific Gravity: 0.796 - 0.799(25 °C)
Partition Coefficient (Measured - Log Pow/Log Kow): 4.41 (Doramectin)

Flash Point (Liquid) (°C): 14.4
Polymerization: Will not occur

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal conditions of use.
Conditions to Avoid: Eliminate possible ignition sources (e.g., heat, sparks, flame, impact, friction, electrostatic discharge).
Incompatible Materials: Strong oxidizers
Hazardous Decomposition Products: May form toxic materials such as carbon monoxide and carbon dioxide.

11. TOXICOLOGICAL INFORMATION

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

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

Triethanolamine
Rat Oral LD50 8 g/kg
Rabbit Dermal LD50 20 g/kg

Isopropyl alcohol
Rat Oral LD50 > 2000 mg/kg
Mouse Oral LD50 3600 mg/kg
Rat Inhalation LC50-8h 16,000 ppm
Rabbit Dermal LD50 12800 mg/kg
Rat Inhalation LC50 30 mg/L

Doramectin
Rat (M) Oral LD50 1000-2000 mg/kg
Rat (F) Oral LD50 500-1000 mg/kg

Acute Toxicity Comments: A greater than symbol (>) indicates that the toxicity endpoint being tested was not achievable at the highest dose used in the test.

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

Isopropyl alcohol
Eye Irritation Rabbit Severe
Skin Irritation Rabbit Mild

Doramectin
Eye Irritation Rabbit Non-irritating
Skin Irritation Rabbit Non-irritating

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

Isopropyl alcohol
20 Week(s) Rat Inhalation 4000 ppm NOAEL Liver, Central nervous system
104 Week(s) Rat Inhalation 5000 ppm Kidney

Doramectin
3 Month(s) Rat Oral 2 mg/kg/day NOEL Liver
3 Month(s) Dog Oral 0.1 mg/kg/day NOEL Central Nervous System

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

Isopropyl alcohol
Prenatal & Postnatal Development Rat Inhalation 7,000 ppm LOAEL Maternal toxicity, Fetotoxicity, Embryotoxicity
2 Generation Reproductive Toxicity Rat Oral 1000 mg/kg/day LOAEL Maternal Toxicity, Fetal mortality
Prenatal & Postnatal Development Rat Oral 1200 mg/kg/day NOAEL No effects at maximum dose

Doramectin
Embryo / Fetal Development Rat Oral >6 mg/kg/day NOEL Not teratogenic
Embryo / Fetal Development Mouse Oral 3 mg/kg/day NOEL Fetotoxicity, Not Teratogenic
Embryo / Fetal Development Rabbit Oral 0.75 mg/kg/day NOEL Maternal Toxicity, Teratogenic

11. TOXICOLOGICAL INFORMATION

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

Isopropyl alcohol
Bacterial Mutagenicity (Ames) *Salmonella* Negative
Mammalian Cell Mutagenicity HGPRT Chinese Hamster Ovary (CHO) cells Negative
In Vitro Sister Chromatid Exchange Negative

Doramectin
Bacterial Mutagenicity (Ames) *Salmonella* Negative
Mammalian Cell Mutagenicity Mouse Lymphoma Negative
Unscheduled DNA Synthesis Rat Hepatocyte Negative

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

Triethanolamine
IARC: Group 3 (Not Classifiable)

FD & C Blue No. 1
IARC: Group 3 (Not Classifiable)

Isopropyl alcohol
IARC: Group 3 (Not Classifiable)

12. ECOLOGICAL INFORMATION

Environmental Overview: In the environment, the active ingredient in this formulation is expected to bind tightly to soil or sediment and and not readily desorb. It is unlikely to reach groundwater and is also biodegradable by soil microflora. Very toxic to aquatic life with long lasting effects.

Bioaccumulation and Toxicity: See aquatic toxicity data, below.

Partition Coefficient (Measured - Log Pow/Log Kow): 4.41 (Doramectin)

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

Triethanolamine
Brachydanio rerio (Zebra fish) LC50 96 Hours 11,800 mg/L
Ceriodaphnia dubia (Daphnids) EC50 48 Hours 610 mg/L
Daphnia Magna (Water Flea) EC50 24 Hours 1386 mg/L
Daphnia magna (Water Flea) NOEC 21 Days 16 mg/L

Doramectin
Daphnia magna (Water Flea) TAD EC50 48 Hours 0.00010 mg/L
Lepomis macrochirus (Bluegill Sunfish) TAD LC50 96 Hours 0.011 mg/L
Oncorhynchus mykiss (Rainbow Trout) TAD LC50 96 Hours 0.0051 mg/L

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

Doramectin
Aspergillus niger (Fungus) TAD MIC 48 Hours 600 mg/L
Clostridium perfingens (Bacterium) TAD MIC 48 Hours 40 mg/L

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods: Dispose of waste in accordance with all applicable laws and regulations. Member State specific and Community specific provisions must be considered. Considering the relevant known environmental and human health hazards of the material, review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental releases. This may include destructive techniques for waste and wastewater.

14. TRANSPORT INFORMATION

The following refers to all modes of transportation unless specified below.

This material is regulated for transportation as a hazardous material/dangerous good.

UN number: UN 1219
UN proper shipping name: Manufactured before January 1, 2010: UN 1993, Flammable liquid, n.o.s. (Isopropanol), 3, II
Manufactured after January 1, 2010: Isopropanol solution, Marine Pollutant
Transport hazard class(es): 3
Packing group: II
Flash Point (°C): 14.4

For small quantities packed in combination packaging [limited to inner packaging < 1.0L (0.3 gal) and outer packaging < 30 kg (66 lb.) gross weight], the following will apply: If your commodity meets the definition of a limited quantity and is packaged for retail sale, it may be considered a consumer commodity and excepted from additional requirements as applicable.

IATA / ICAO
IATA UN / ID No: ID 8000
IATA Proper shipping name: Consumer Commodity
IATA Hazard Class: 9
IATA Packing Group: Not applicable
IATA Limits: [Inner packaging <= 500 mL (17 Fl. Oz); Outer packaging <= 30 kg (66 lb) gross weight.]

IMDG IMDG
IMDG UN / ID No: UN 1219
IMDG Proper shipping name: Isopropanol Solution Ltd. Qty. Marine pollutant (Doramectin)
IMDG Hazard Class: 3
IMDG Packing Group: II
Flash Point (°C): 14.4

ADR/RID
ADR / RID UN / ID No: UN 1219
ADR/RID Proper shipping name: Isopropanol Solution Ltd. Qty.
ADR / RID Hazard Class: 3
ADR / RID Packing Group: II
ADR/RID Note: ADR Limited Quantity is <= 3.0 liters per inner packaging. Outer packaging <= 30 kg. (66 lb) max.

DOT
DOT Proper shipping name: Consumer Commodity
DOT Hazard Class: ORM-D

15. REGULATORY INFORMATION

EU Symbol: F Xi N
EU Indication of danger: Flammable
Irritant
Dangerous for the Environment

EU Risk Phrases:

R11 - Highly flammable.
R36 - Irritating to eyes.
R67 - Vapors may cause drowsiness and dizziness.
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

EU Safety Phrases:

S7 - Keep container tightly closed.
S16 - Keep away from sources of ignition - No smoking.
S24/25 - Avoid contact with eyes and skin.
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S61 - Avoid release to the environment. Refer to special instructions/Safety data sheets.

OSHA Label:
WARNING
Highly flammable liquid and vapor.
Causes eye irritation.
Vapors may cause drowsiness and irritation of the eyes or respiratory tract.
Very toxic to aquatic life with long lasting effects.

Canada - WHMIS: Classifications

WHMIS hazard class:
Class D, Division 2, Subdivision B
Class B, Division 2

Doramectin

Standard for the Uniform Scheduling for Drugs and Poisons:	Schedule 5 Schedule 6 Schedule 7

Triethanolamine

Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
Standard for the Uniform Scheduling for Drugs and Poisons:	Schedule 5
EU EINECS/ELINCS List	203-049-8

15. REGULATORY INFORMATION

Isopropyl alcohol

CERCLA/SARA 313 Emission reporting	1.0 %
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	200-661-7

Cetearyl octanoate

Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	261-619-1

FD & C Blue No. 1

Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	223-339-8

Water for injection

Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
REACH - Annex IV - Exemptions from the obligations of Register:	Present
EU EINECS/ELINCS List	231-791-2

16. OTHER INFORMATION

Text of R phrases mentioned in Section 3

R11 - Highly flammable.
R22 - Harmful if swallowed.
R36 - Irritating to eyes.
R63 - Possible risk of harm to the unborn child.
R64 - May cause harm to breastfed babies.
R67 - Vapors may cause drowsiness and dizziness.
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Reasons for Revision: Updated Section 1 - Identification of the Substance/Preparation and the Company/Undertaking.

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

Pfizer Inc believes that the information contained in this Material 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