



## SAFETY DATA SHEET

Version Date: 10 November 2011

Supersedes: 01 June 2009

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Eprinomectin 5% Injection**Trade Name(s):** LONGRANGE

The following information is intended to give general health and safety guidance on the manufacturing, storage and transport of the mixture. Professional and non-professional users should consult label and package inserts for the proper use, storage and disposal of this mixture.

**Chemical Family:** Mixture: avermectin**Chemical Name:** Mixture - NA**Synonyms:** NA**Formula:** None**Product Use:** Eprinomectin 5% Injection is for treatment and control of gastrointestinal roundworms, lungworms, warbles, sucking and biting lice, chorioptic and sarcoptic mange mites in beef and dairy cattle.

**COMPANY ADDRESS** Merial Limited  
3239 Satellite Boulevard  
Duluth, Georgia 30096-4640

#### EMERGENCY INFORMATION:

**HEALTH INFORMATION** 1-888-637-4251, option 3 (U.S.A. and Canada)**SPILL INFORMATION** CHEMTREC® (In the U.S.A.): 1-800-424-9300  
CHEMTREC® (International): 1-703-527-3887 (call collect)

### 2. HAZARDS IDENTIFICATION

**Danger!****Emergency Overview**





Harmful if swallowed. Causes mild skin irritation. Causes serious eye irritation. Causes damage to central nervous system through single or prolonged/repeated exposure. Suspected of damaging fertility or the unborn child. Very toxic to aquatic life. Do not eat, drink, or smoke when handling this mixture. Wash hands thoroughly after handling.


**Risk phrase(s):** HARMFUL IF SWALLOWED (R22)  
IRRITATING TO EYES (R36)  
IRRITATING TO SKIN (R38)  
DANGER OF SERIOUS DAMAGE TO HEALTH BY PROLONGED EXPOSURE (R48)  
VERY TOXIC TO AQUATIC ORGANISMS (R50)

POSSIBLE RISK OF HARM TO THE UNBORN CHILD (R63)

**Safety Phrase(s):** KEEP OUT OF THE REACH OF CHILDREN (S2)  
 AVOID CONTACT WITH SKIN (S24)  
 AFTER CONTACT WITH SKIN, WASH IMMEDIATELY WITH PLENTY OF WATER (S28)  
 AVOID CONTACT WITH EYES (S25)  
 IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE (S26)  
 KEEP CONTAINER TIGHTLY CLOSED AND IN A WELL-VENTILATED PLACE. (S7/9)  
 DO NOT EMPTY INTO DRAINS (S29)  
 IF SWALLOWED, SEEK MEDICAL ADVICE IMMEDIATELY AND SHOW THE CONTAINER OR LABEL (S46)  
 AVOID RELEASE TO THE ENVIRONMENT (S60)

The following three boxes are relevant to GHS classification and are not labeling guides.

Health Hazard (GHS Classification)	Category	Pictogram	Signal Word	Hazard Statement
Acute Oral Toxicity	4		Warning	Harmful if swallowed (H302)
Dermal Irritation	3 (ATE)	No Symbol	Warning	Causes mild skin irritation (H316)
Ocular Irritation	2A (ATE)		Warning	Causes serious eye irritation (H319)
Reproductive Toxicity	2	-	Warning	Suspected of damaging fertility or the unborn child (H361)
SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE:	1		Danger	Causes damage to organs (CNS) (H370)
SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE:	1		Danger	Causes damage to organs (CNS) through prolonged or repeated exposure (H372)

Environmental Hazard (GHS Classification)	Category	Pictogram	Signal Word	Hazard Statement
Acute Aquatic Hazard	1		Warning	Very toxic to aquatic life (H400)

#### POTENTIAL HEALTH EFFECTS

The following potential human health effects are the results of the exposure to the mixture or extrapolated from the individual ingredients of the mixture.

EYE:	The mixture is irritating to the eyes.
SKIN:	The mixture is mildly irritating to the skin. The mixture is not anticipated to produce skin sensitization.
INHALATION:	The mixture is not anticipated to produce vapors in a sufficient quantity that would be irritating to eyes, skin, nose and/or throat.
INGESTION:	The mixture is harmful if swallowed.
CHRONIC EFFECTS:	The mixture is not anticipated to be carcinogenic or mutagenic. However, NMP is a potential reproductive/developmental toxin.
SIGNS AND SYMPTOMS OF EXPOSURE:	Overexposure to the active ingredient eprinomectin may cause in-coordination, drowsiness, depressed motor activity, slowed breathing, dilation of the pupils, tremors, vomiting, anorexia, muscle tremors, headache and dizziness.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:	None known.

<b>POTENTIAL ENVIRONMENTAL EFFECTS</b>	Some ingredients of this mixture are very toxic to aquatic life. Avoid release to the environment.
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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS No.	Proportion (% w/v)	Cut off conc. for classification %	Risk phrases
Eprinomectin	123997-26-2	5	-	R22, 50
N-methyl pyrrolidone (NMP)	872-50-4	30	-	R45, 60,61
Non Hazardous		65	-	

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#### 4. FIRST AID MEASURES

<b>EYE CONTACT:</b>	In case of contact or if eyes become irritated during administration, immediately flush eyes with plenty of water for at least 15 minutes. If ocular irritation persists, seek medical attention.
<b>SKIN CONTACT:</b>	If skin or hair contact occurs, remove contaminated clothing and shoes and flush skin and/or hair with plenty of water for at least 15 minutes. Launder contaminated clothing before reuse. If skin irritation develops and persists or recurs, seek medical attention.
<b>INHALATION:</b>	If inhaled, remove from contaminated area. Administer artificial respiration if not breathing. If lungs become irritated or breathing is difficult during use of the product, move to fresh air and seek medical attention.
<b>INGESTION:</b>	If swallowed, do NOT induce vomiting and seek immediate medical attention.

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#### 5. FIRE FIGHTING MEASURES

<b>UNUSUAL FIRE AND EXPLOSION HAZARDS:</b>	Prevent accumulation of vapors. When heated to decomposition, may produce oxides of carbon and nitrogen.
<b>EXTINGUISHING MEDIA:</b>	Carbon dioxide, dry chemical extinguishers, foam, water fog or spray. Large fires with "alcohol"-type foam extinguishers. Use extinguishing media appropriate for surrounding materials. Contain contaminated fire-fighting water.
<b>PROTECTION OF FIREFIGHTERS:</b>	Fire fighters should wear approved/certified positive pressure self-contained breathing apparatus and full protective equipment.

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#### 6. ACCIDENTAL RELEASE MEASURES

**For transportation-related and large spills call CHEMTREC at 1-800-424-9300. If outside the U.S.A., call CHEMTREC collect at 1-703-527-3887.**

For small spills, use protective equipment as prescribed in Section 8. Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material in sealed container as waste according to Section 13.

<b>PERSONAL PRECAUTIONS:</b>	Evacuate unnecessary personnel and eliminate all sources of ignition. Follow protective measures provided under Personal Protection in Section 8.
<b>ENVIRONMENTAL PRECAUTIONS:</b>	Avoid release to the environment.
<b>METHODS FOR CLEANING UP:</b>	For small spills, soak up with absorbent materials and place in properly labeled containers.

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## 7. HANDLING AND STORAGE

<b>HANDLING:</b>	No smoking, eating, or drinking while using this mixture. Keep container tightly closed when not in use. Provide for adequate ventilation to prevent accumulation of vapors. Avoid prolonged or repeated exposure. Do not get in eyes, on skin or clothing. Keep away from incompatible materials (see Section 10).
<b>PROTECTION AGAINST EXPLOSION AND FIRES:</b>	Keep ignition sources away. Do not smoke. Protect against electrostatic charges. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating, and/or lighting equipment. Use only non-sparking tools.
<b>STORAGE:</b>	Store in a well-ventilated place. Keep cool. Store locked up.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION (INDUSTRIAL)

<b>ENGINEERING CONTROLS:</b>	Use local exhaust ventilation to prevent accumulation of vapors.
<b>EYE / FACE PROTECTION:</b>	Wear chemical splash goggles when cleaning spilled mixture or if the potential for eye contact exists, wear safety glasses with side shields for normal handling.
<b>SKIN PROTECTION:</b>	Wear butyl rubber, neoprene, vinyl or other chemical resistant impervious gloves.
<b>RESPIRATORY PROTECTION:</b>	Wear approved/certified respirator when cleaning up spills. For normal use, ensure adequate exhaust ventilation.
<b>GENERAL HYGIENE CONSIDERATIONS:</b>	Do not eat, drink, or smoke while using this mixture. Wash hands thoroughly after use.
<b>OTHER:</b>	Provide emergency shower and eyewash facility in close proximity to use. Remove contaminated clothing and launder before reuse or discard.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State:</b>	Liquid (viscous, oily)
<b>Color:</b>	Translucent to opaque
<b>Odor:</b>	Mild oil odor
<b>pH:</b>	No data
<b>Melting/Freezing Point:</b>	No data
<b>Boiling Point:</b>	No data
<b>Flash Point:</b>	98 °C
<b>Flammability:</b>	No data
<b>Lower Explosive Limit:</b>	No data
<b>Upper Explosive Limit:</b>	No data
<b>Autoignition Temperature:</b>	No data
<b>Decomposition Temperature:</b>	No data
<b>Vapor Pressure:</b>	No data

<b>Vapor Density:</b>	No data
<b>Solubility in Water:</b>	Low
<b>Specific gravity:</b>	1.04 g/cc
<b>Viscosity:</b>	65-100 cps
<b>Partition Coefficient (n-octanol/Water):</b>	Log K <sub>ow</sub> -0.38 to 5.4 (ingredients) (computer generated)
<b>Partition Coefficient (n-octanol/Air):</b>	Log K <sub>oa</sub> 5.218 to 29.748 (ingredients) (computer generated)
<b>Soil Partition Coefficient:</b>	Log K <sub>oc</sub> 0.000 – 5.943 (ingredients) (computer generated)

## 10. STABILITY AND REACTIVITY

<b>STABILITY:</b>	Stable under normal conditions.
<b>CONDITIONS TO AVOID:</b>	Avoid exposure to heat, sparks, or flame.
<b>MATERIALS TO AVOID:</b>	Avoid strong oxidizing agents
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	When heated, decomposition may produce oxides of carbon and nitrogen as well as other uncharacterized decomposition products.
<b>HAZARDOUS POLYMERIZATION:</b>	Will not occur.

## 11. TOXICOLOGICAL INFORMATION

<b>POTENTIAL EXPOSURE ROUTES:</b>	This mixture may be encountered through skin contact, eye contact or ingestion.
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**ACUTE TOXICITY DATA:** *The following toxicity data are derived from the mixture.*

Parameter	Result	Comments
<b>Acute Oral (LD<sub>50</sub>)</b>	879.2 mg/kg	ATE – Category 4
<b>Acute Dermal (LD<sub>50</sub>)</b>	6365.6 mg/kg	ATE – Above the cut-off for the highest classification
<b>Acute Inhalation (LC<sub>50</sub>)</b>	~60 mg/L	ATE – Above the cut-off for the highest classification
<b>Ocular Irritant</b>	2A	ATE – based on the percentage of each ingredient and their corresponding irritation score
<b>Dermal Irritant</b>	3	ATE – based on the percentage of each ingredient and their corresponding irritation score
<b>Dermal Sensitizer</b>	NE	

NE = Not Established, ATE = Acute Toxicity Estimate

*The following toxicity data are derived from the ingredients of the mixture, and are considered relevant to the final mixture.*

<b>CARCINOGENICITY:</b>	At high doses, NMP has caused liver tumors in mice. These results are not considered relevant to humans given the negative results in other test systems and the high doses required to produce effects in mice. Based on the results from a number of long-term carcinogenicity studies and short term tests, there is no indication that NMP itself is carcinogenic. None of the remaining ingredients in the mixture are considered to be carcinogenic.
<b>MUTAGENICITY:</b>	None of the ingredients in the mixture are considered to be mutagenic.
<b>REPRODUCTIVE EFFECTS:</b>	None of the ingredients in the mixture are considered to be reproductive toxins.
<b>TERATOGENICITY/ DEVELOPMENTAL EFFECTS:</b>	NMP may adversely affect the developing fetus based on animal data. None of the remaining ingredients in the mixture are considered to be teratogenic or developmental toxins.
<b>SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE:</b>	Based on the concentration of eprinomectin in the mixture, the specific target organ toxicity – single exposure classification is a Category 2. Animal studies and human pharmacovigilance reports identify eprinomectin as a neurotoxicant. Signs and symptoms include: in-coordination, drowsiness, depressed motor activity, slowed breathing, dilation of the pupils, tremors, vomiting, anorexia, muscle tremors, headache and dizziness.
<b>SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE:</b>	Based on the concentration of eprinomectin in the mixture, the specific target organ toxicity – repeated exposure classification is a Category 1. Animal studies and human pharmacovigilance reports identify eprinomectin as a neurotoxicant. Signs and symptoms include: in-coordination, drowsiness, depressed motor activity, slowed breathing, dilation of the pupils, tremors, vomiting, anorexia, muscle tremors, headache and dizziness.
<b>INTERACTIONS WITH OTHER CHEMICALS WHICH ENHANCE TOXICITY:</b>	None known

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## 12. ECOLOGICAL INFORMATION

The following toxicity data are derived from the ingredients of the mixture, and are considered relevant to the mixture.

<b>TOXICITY:</b>	LC <sub>50</sub> /EC <sub>50</sub> for the various ingredients ranged from 0.000025 to >5000 mg/L for freshwater fish, invertebrates and plants. Based on test results for the most sensitive species (freshwater invertebrates) and mathematical modeling, the mixture is considered a Category 1 Acute Aquatic Hazard (GHS standards).
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<b>PERSISTENCE AND DEGRADABILITY:</b>	Based upon biodegradation testing, computer modeling and physico-chemical characteristics of the ingredients in the mixture, the mixture is considered inherently biodegradable in the environment.
<b>BIOACCUMULATION POTENTIAL:</b>	Based on the $K_{ow}$ of the ingredients in the mixture, some of the ingredients have the potential for bioaccumulation. However, fugacity modeling and biodegradation testing suggest that the potential for bioaccumulation of those ingredients is low. Therefore, it is considered that the mixture will not persist in the environment.
<b>MOBILITY IN SOIL:</b>	Based on the $K_{oc}$ of the ingredients in the mixture and fugacity modeling, the mixture is not considered to have a high probability of mobility through the soil.

### 13. DISPOSAL CONSIDERATIONS

**Responsibility for proper waste disposal is with the owner of the waste.** Dispose of all waste mixtures and containers in accordance with national, regional, state and local regulations.

<b>SPECIAL PRECAUTIONS:</b>	As the active ingredient is highly toxic to aquatic organisms, great care is needed to ensure that the product does not reach a drain, waterway or unpaved soil.
<b>METHOD OF DISPOSAL:</b>	Triple or (preferably) pressure-rinse the empty container. Dispose of waste product/rinsate in a disposal pit specifically marked and set up for this purpose clear of waterways, vegetation and roots. Return clean container for recycling where this is an option or for disposal at a landfill authorized to accept that waste. If neither of these options is available, bury the container below 500 mm in the disposal pit. Empty containers should not be burned. Contaminated water can be treated by activated carbon absorption.  For the disposal of the clean-up materials from a significant spill consult waste authority regarding disposal.

### 14. TRANSPORT INFORMATION

<b>Air Transport ICAO-TI and IATA-DGR:</b>	ICAO/IATA Class:	9 Miscellaneous dangerous substances and articles
	UN/ID Number:	3077
	Label:	-
	Packing Group:	III
	Proper Shipping Name:	Environmentally hazardous substance, solid, n.o.s. (eprinomectin)
<b>Maritime Transport IMDG:</b>	IMDG Class:	9 Miscellaneous dangerous substances and articles
	UN Number:	3077
	Label:	-
	Packaging Group:	III
	EMS Number:	-



	Marine Pollutant:	Yes
	Proper Shipping Name:	Environmentally hazardous substance, solid, n.o.s. (eprinomectin)
<b>Land Transport ADR/RID: (cross-border)</b>	ADR/RID Class:	9 Miscellaneous dangerous substances and articles
	Danger Code (Kemler):	-
	UN Number:	3077
	Packaging Group:	III
	Proper Shipping Name:	Environmentally hazardous substance, solid, n.o.s. (eprinomectin)
<b>USDOT Regulations:</b>	Hazard Class:	Not Regulated
	Identification Number:	-
	Packing Group:	-
	Proper Shipping Name: (technical name)	-

## 15. REGULATORY INFORMATION

<b>GHS Hazard Phrase:</b>	H302	Harmful if swallowed
	H316	Causes mild skin irritation
	H319	Causes serious eye irritation
	H361	Suspected of damaging fertility or the unborn child
	H370	Causes damage to organs (CNS)
	H372	Causes damage to organs (CNS) through prolonged or repeated exposure
	H400	Very toxic to aquatic life with long lasting effects
<b>GHS Precautionary Phrases - Prevention:</b>	P280	Wear protective gloves/protective clothing/eye protection/face protection
<b>GHS Precautionary Phrases - Response:</b>	P313/P316 P313 + P312	Call a POISON CENTER or doctor/physician if you feel unwell.
	P303 + P361 + P353	If on skin (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
	P337 + P313	If eye irritation persists: Get medical advice/attention.
	P391	Collect spillage.
<b>GHS Precautionary Phrases - Disposal:</b>	P501	Dispose of contents/container to in accordance with local/regional/national/international regulation.

**United States:**

This mixture is exempt from classification under Environmental Protection Agency (EPA) Superfund Amendments and Reauthorization Act (SARA), Hazardous Substances List or Toxic Substances Control Act (TSCA)

**STATE RIGHT-TO-KNOW STATUS:**

Component	CA	NJ	PA	MA
Eprinomectin	Not listed	Not listed	Not listed	Not listed
N-methyl pyrrolidone	Listed	Listed	Listed	Listed

CA = California Proposition 65

NJ = New Jersey

PA = Pennsylvania

MA = Massachusetts

**Canada:**

This mixture is exempt from classification under WHMIS Requirements of the *Hazardous Products Act* and Controlled Products Regulations.

**16. OTHER INFORMATION**

Information contain within this document was based on the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) (a.k.a. Purple Book).

**KEY/LEGEND USED:**

NE = Not Established

ATE = Acute Toxicity Estimate

LD50 = The median lethal dose where 50% mortality is noted

LC50 = The median lethal concentration (in air or solution) where 50% mortality is noted

CNS = Central Nervous System

**DISCLAIMER:**

The requirements or recommendations of any relevant site or working procedure, system or policy in force or arising from any risk assessment involving the substance or mixture should take precedence over any of the guidance contained in this safety data sheet where there is a difference in the information given.

To the best of our knowledge, the information provided in this safety data sheet is accurate at the date of publication and will be updated as and when appropriate. However, neither Merial nor any of its subsidiaries or parents assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards may be described herein, Merial cannot guarantee that these are the only hazards that exist.