

**Material Safety Data Sheet**  
**ISO/DIS 11014 / 29 CFR 1910.1200 / ANSI Z400.1**

Printing date 12/18/2015

Reviewed on 12/18/2015

**1 Identification**

- **Product identifier**
- **Trade name: Eprinomectin 5% Injection**  
**LONGRANGE**
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Merial Limited  
3239 Satellite Blvd.  
Duluth, Ga. 30096-4640  
1-888-MERIAL 1 (1-888-637-4251)
- **Emergency telephone number:**  
Spill Information:  
CHEMTREC® 1-800-424-9300  
CHEMTREC® International 1+703-527-3887  
International calls 011+703-527-3887  
Reverse charges.

**2 Hazard(s) identification**

- **Classification of the substance or mixture**



GHS08 Health hazard

- Repr. 1B H360 May damage fertility or the unborn child.
- STOT SE 1 H370-H335 Causes damage to organs. May cause respiratory irritation.
- STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.



GHS07

- Acute Tox. 4 H302 Harmful if swallowed.
- Skin Irrit. 2 H315 Causes skin irritation.
- Eye Irrit. 2A H319 Causes serious eye irritation.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms** GHS07, GHS08
- **Signal word** Danger
- **Hazard-determining components of labeling:**  
N-methyl-2-pyrrolidone  
Eprinomectin
- **Hazard statements**  
H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H360 May damage fertility or the unborn child.  
H370-H335 Causes damage to organs. May cause respiratory irritation.  
H372 Causes damage to organs through prolonged or repeated exposure.

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· **Precautionary statements**

- P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
 P280 Wear protective gloves.  
 P280 Wear eye protection / face protection.  
 P264 Wash thoroughly after handling.  
 P270 Do not eat, drink or smoke when using this product.  
 P201 Obtain special instructions before use.  
 P202 Do not handle until all safety precautions have been read and understood.  
 P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P321 Specific treatment (see on this label).  
 P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.  
 P308+P313 IF exposed or concerned: Get medical advice/attention.  
 P332+P313 If skin irritation occurs: Get medical advice/attention.  
 P337+P313 If eye irritation persists: Get medical advice/attention.  
 P314 Get medical advice/attention if you feel unwell.  
 P330 Rinse mouth.  
 P302+P352 IF ON SKIN: Wash with plenty of water.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P405 Store locked up.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



· **Other hazards**

Health Hazard - Acute Oral Toxicity - Category 4

Pictogram - Yes

Signal Word - Warning

Hazard Statement - Harmful if swallowed

Environmental Hazard - Acute Aquatic Toxicity - Category 1

Pictogram - Yes

Signal Word - Warning

Hazard Statement - Very toxic to aquatic life

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

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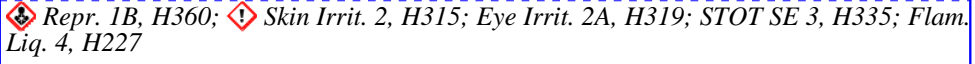
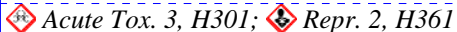
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### 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Components:**

872-50-4	N-methyl-2-pyrrolidone 	25-50%
123997-26-2	Eprinomectin 	3-<10%

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

### 4 First-aid measures

· **Description of first aid measures**

· **General information:** No special measures required.

· **After inhalation:**

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.

· **After skin contact:**

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.

· **After eye contact:**

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.

· **After swallowing:** If swallowed, do NOT induce vomiting and seek immediate medical attention.

· **After self injection**

· **Most important symptoms and effects, both acute and delayed**

In case of symptomatic effect provide treatment to maintain life functions.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### 5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

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.

· **Special hazards arising from the substance or mixture**

Prevent accumulation of vapors. When heated to decomposition, may produce oxides of carbon and nitrogen.

· **Advice for firefighters**

· **Protective equipment:** Self-contained breathing apparatus and full protective equipment.

### 6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Evacuate unnecessary personnel and eliminate all sources of ignition. Follow protective measures provided under Personal Protection in Section 8.

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- **Environmental precautions:** Do not allow product to reach sewage system or any water course.
- **Methods and material for containment and cleaning up:**  
 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.
- **Reference to other sections** No dangerous substances are released.

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
 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).
- **Information about protection against explosions and fires:**  
 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.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store only in the original container.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Store in a well-ventilated place. Keep cool. Store locked up.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

### 872-50-4 N-methyl-2-pyrrolidone

WEEL (USA)	Long-term value: 10 ppm Skin
AGW (Germany)	Long-term value: 82 mg/m <sup>3</sup> , 20 ppm 2(I);EU, DFG, AGS, H, Y, 11, 19

- **Ingredients with biological limit values:**

### 872-50-4 N-methyl-2-pyrrolidone

BEI (USA)	100 mg/L Medium: urine Time: end of shift Parameter: 5-Hydroxy-N-methyl-2-pyrrolidone
BGW (Germany)	150 mg/l Untersuchungsmaterial: Urin Probennahmezeitpunkt: Expositionsende bzw. Schichtende Parameter: 5-Hydroxy-N-methyl-2-pyrrolidone

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls** Use local exhaust ventilation to prevent accumulation of vapors.

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- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Wash hands before breaks and at the end of work.  
Do not eat, drink, smoke or inhale.
- **Breathing equipment:**  
Wear approved/certified respirator when cleaning up spills. For normal use, ensure adequate exhaust ventilation.
- **Protection of hands:** Wear butyl rubber, neoprene, vinyl or other chemical resistant impervious gloves.
- **Eye protection:**  
Wear chemical splash goggles when cleaning spilled product or if the potential for splashing exists. Wear safety glasses with side shields for normal working conditions.
- **Body protection:** Impervious protective clothing

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

<b>Form:</b>	Viscous oily liquid
<b>Color:</b>	Translucent to opaque
<b>Odor:</b>	Mild oil

- **Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	Undetermined.

- **Flash point:** 98 °C (208 °F)

- **Ignition temperature:** 234 - 237 °C (453 - 459 °F)

- **Auto igniting:** Product is not self-igniting.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Vapor pressure at 20 °C (68 °F):** 0.3 hPa

- **Specific gravity:** Not determined.  
1.04 g/cc

- **Solubility in / Miscibility with**

- **Water:** Not miscible or difficult to mix.

- **Viscosity at 25 °C (77 °F):** 65–100 Cp

- **Organic solvents:** 30.0 %

- **Other information** No further relevant information available.

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Avoid exposure to heat, sparks, or flame.
- **Incompatible materials:** Avoid strong oxidizing agents

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· **Hazardous decomposition products:** When heated to decomposition may produce oxides of carbon and nitrogen.

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

### 872-50-4 N-methyl-2-pyrrolidone

Oral	LD50	3600 mg/kg (rat)
Dermal	LD50	8000 mg/kg (rabbit)

### 133305-88-1 Eprinomectin

Oral	LD50	70 mg/kg (mouse)
		55 mg/kg (rat)

· **Primary irritant effect:**

· **on the skin:**

The mixture is mildly irritating to the skin. The mixture is not anticipated to produce skin sensitization.

· **on the eye:** The mixture is irritating to the eyes.

· **Sensitization:** No sensitizing effects known.

· **Other information (about experimental toxicology):**

Acute Oral (LD50) 879.2 mg/kg ATE – Category 4

Acute Dermal (LD50) 6365.6 mg/kg ATE – Above the cut-off for the highest classification

Acute Inhalation (LC50) ~60 mg/L ATE – Above the cut-off for the highest classification

Ocular Irritant 2A ATE – based on the percentage of each ingredient and their corresponding irritation score

Dermal Irritant 3 ATE – based on the percentage of each ingredient and their corresponding irritation score

Dermal Sensitizer NE

· **Subacute to chronic toxicity:**

**CARCINOGENICITY:**

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.

**MUTAGENICITY:**

None of the ingredients in the mixture are considered to be mutagenic.

**REPRODUCTIVE EFFECTS:**

None of the ingredients in the mixture are considered to be reproductive toxins.

**TERATOGENICITY/DEVELOPMENTAL EFFECTS:**

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.

· **Additional toxicological information:**

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

**SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE:**

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.

**SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE:**

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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.

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

## 12 Ecological information

· **Toxicity**

LC50/EC50 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).

· **Aquatic toxicity:**

**133305-88-1 Eprinomectin**

LC50 / 48 hrs 0.45 ppb (Daphnia magna)

LC50 / 96hrs 1.2 ppb (Rainbow Trout)

· **Persistence and degradability**

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.

· **Behavior in environmental systems:**

· **Bioaccumulative potential**

Based on the Kow 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.

· **Mobility in soil**

Based on the Koc of the ingredients in the mixture and fugacity modeling, the mixture is not considered to have a high probability of mobility through the soil.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:** Disposal must be made according to official regulations.

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- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

· <b>UN-Number</b>	None 3082
· <b>UN proper shipping name</b>	Environmentally hazardous substances, liquid, n.o.s.
· <b>Transport hazard class(es)</b>	9
· <b>Packing group</b>	III
· <b>Environmental hazards:</b>	Environmentally hazardous substance, liquid
· <b>Special precautions for user</b>	Not applicable.
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.

### 15 Regulatory information

· <b>Safety, health and environmental regulations/legislation specific for the substance or mixture</b>
· <b>SARA</b>
· <b>Section 355 (extremely hazardous substances):</b>
None of the ingredients are listed.
· <b>Section 313 (Specific toxic chemical listings):</b>
872-50-4   N-methyl-2-pyrrolidone
· <b>TSCA (Toxic Substances Control Act):</b>
872-50-4   N-methyl-2-pyrrolidone
· <b>CA Proposition 65</b>
· <b>Chemicals known to cause cancer:</b>
None of the ingredients are listed.
· <b>Chemicals known to cause reproductive toxicity for females:</b>
None of the ingredients is listed.
· <b>Chemicals known to cause reproductive toxicity for males:</b>
None of the ingredients is listed.
· <b>Chemicals known to cause developmental toxicity:</b>
872-50-4   N-methyl-2-pyrrolidone
· <b>Carcinogenesis potential categories</b>
· <b>EPA (Environmental Protection Agency)</b>
None of the ingredients is listed.
· <b>TLV (Threshold Limit Value established by ACGIH)</b>
None of the ingredients is listed.



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· **MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms** GHS07, GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**

*N*-methyl-2-pyrrolidone

Eprinomectin

· **Hazard statements**

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H360 May damage fertility or the unborn child.

H370-H335 Causes damage to organs. May cause respiratory irritation.

H372 Causes damage to organs through prolonged or repeated exposure.

· **Precautionary statements**

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P280 Wear protective gloves.

P280 Wear eye protection / face protection.

P264 Wash thoroughly after handling.

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

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P321 Specific treatment (see on this label).

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

P314 Get medical advice/attention if you feel unwell.

P330 Rinse mouth.

P302+P352 IF ON SKIN: Wash with plenty of water.

P362+P364 Take off contaminated clothing and wash it before reuse.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Other regulations, limitations and prohibitive regulations** CANADIAN WHMIS CLASS: D2B

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

To the best of our knowledge, the information contained herein is accurate. However, neither Merial nor its subsidiaries or parents assume 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 are described herein, Merial cannot guarantee that these are the only hazards that exist.

· **Contact:** MSDS Coordinator, msds@merial.com

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· **Date of preparation / last revision** 12/18/2015 / -

· **Abbreviations and acronyms:**

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 4: Flammable liquids, Hazard Category 4

Acute Tox. 3: Acute toxicity, Hazard Category 3

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

Repr. 1B: Reproductive toxicity, Hazard Category 1B

Repr. 2: Reproductive toxicity, Hazard Category 2

STOT SE 1: Specific target organ toxicity - Single exposure, Hazard Category 1

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1