

## MATERIAL SAFETY DATA SHEET (MSDS)

### FREEDOM® 45 SPOT-ON INSECTICIDE FOR HORSES

#### 1) CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**STAR HORSE PRODUCTS, INC.**, 1802 N. Carson St. Suite 212 – 2808 Carson City NV 89701  
**Emergency telephone number:** (For Human Exposure) Rocky Mountain Poison Center: 303-739-1110  
**Company contact:** Animal Health Technical Services: 800-562-7535 (For Animal Adverse Events)  
**Transportation emergencies:** Chemtrec: 800-562-7535  
**Product name:** Freedom® 45 Spot-On For Horses  
**Trade name:** N/A  
**Cas number:** 52645-53-1 (Active Ingredient)  
**Chemical formula:** Mixture  
**EPA Reg. No.:** 72969-2  
**Synonyms:** None

#### 2) COMPOSITION / INFORMATION ON INGREDIENTS

±  
**Active ingredient:** Permethrin (3-phenoxyphenyl) methyl (±) -cis, trans-3-(2,2-dichloroethenyl) -2, 2-dimethylcyclopropanecarboxylate (\*) - 45% (\*cis/trans ratio: Max 55% (±) cis and min 45% (±) trans)  
**Inert ingredient:** - 55%

#### 3) HAZARDS IDENTIFICATION

**Potential health effects:** **Eyes** – Moderate eye irritant.  
**Skin** – Harmful if absorbed through the skin.  
**Ingestion** – Harmful if swallowed.  
**Inhalation** – Harmful following inhalation exposure.

#### 4) FIRST AID MEASURES

**EYES:** Flush with water for at least 15 minutes. Obtain medical attention.  
**SKIN:** Remove contaminated clothing. Thoroughly wash exposed area with soap and water. Obtain medical attention.  
**INGESTION:** Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger or, if available, by administering syrup of ipecac. Do not induce vomiting or give anything to an unconscious person.  
**INHALATION:** Remove from exposure. If breathing is feeble or ceases, give artificial respiration. Obtain medical attention.

#### 5) FIRE FIGHTING MEASURES

**Flammable properties:** Flash Point: Above 200° F by Cleveland Open Cup Method ASTM D92.  
Above 188° F by Tag Closed Cup Method ASTM D56.  
Autoignition: N/A  
**Fire and explosion hazards:** None known.  
**Extinguishing media:** Water fog, all purpose type foam, carbon dioxide, dry chemical, or halon 1211.  
**Fire fighting instructions:** Self-contained breathing apparatus and protective clothing.

## 6) ACCIDENTAL RELEASE MEASURES

### Steps to be taken in case material is released or spilled:

Wear clean protective clothing, rubber gloves, and goggles.

Recover free liquid by adding absorbent (sand, ash, earth, sawdust, kitty litter, etc.) to spill area.

Shovel waste into a metal drum.

Avoid contact with skin.

Keep product out of sewers and watercourses by diking or impounding.

Advise authorities if product has entered or may enter sewers, watercourses or extensive land areas.

### Decontamination:

Following clean up of spill, wash contaminated area with detergent and water solution.

Collect wash water in containers for disposal.

**Product disposal:** Securely wrap original container in several layers of newspapers and discard in \ trash.

**Container disposal:** Do not reuse empty container. Wrap container and put in trash.

**THIS PRODUCT IS TOXIC TO FISH. DO NOT ADD DIRECTLY TO WATER. DO NOT CONTAMINATE WATER WHEN CLEANING EQUIPMENT OR DISPOSING OF EQUIPMENT WASHWATERS.**

## 7) HANDLING AND STORAGE

### Handling precautions:

Store in a cool, dry place. Do not contaminate water, food, or feed by storage or disposal.

Evacuate all areas where fire seriously threatens container.

Overheated sealed containers are an EXPLOSION HAZARD during a fire.

### Work / hygienic practices:

Harmful if swallowed or absorbed through the skin.

Causes moderate eye irritation.

Avoid contact with skin, eyes, and clothing.

Wear goggles, face shield, or safety glasses.

Wash thoroughly with soap and water after handling.

Remove contaminated clothing and wash before reuse.

## 8) EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering controls:** Thoroughly ventilate transport vehicles prior to unloading. Store in a cool, dry place. General exhaust ventilation is considered sufficient.

**Eye / face protection:** Where potential for splashing exists, or contact with spray or mist is likely, protective goggles and face shield should be worn. A source of clean water for flushing should be nearby.

**Skin protection:** Long-sleeved coveralls or uniform, cap, rubber boots, neoprene gloves, rubber or plastic apron.

**Respiratory protection:** For fires, use self-contained breathing apparatus only. For moderate vapor or liquid mist exposure, use half mask or full face piece respirators which have NIOSH / MESA approval for pesticides.

**Other / general protection:**

- Controlled access to the work area is strongly recommended.
- Work surfaces should be decontaminated after all potentially high risk activities.
- Eating, drinking, smoking and applying cosmetics should not be permitted in the work area.
- Avoid contact with eyes.
- Avoid breathing vapors.
- Avoid prolonged contact with skin.
- Remove contaminated clothing. Launder before reuse.
- Do not use or store near heat or open flame.
- Keep container sealed when not in use.
- Do not handle or store near food or feed.

---

**9) PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance:** Golden colored liquid with a characteristic odor.

**Basic physical properties**

- Physical State: Liquid
- Boiling Point: N/A
- Melting Point: N/A
- Vapor Pressure: N/A
- Vapor Density (Air=1): N/A
- Specific Gravity: 1.102 grams/ml @20°C
- Molecular Weight: N/A
- Solubility (H<sub>2</sub>O): Partially soluble in water. Permethrin is not soluble in water and drops to bottom of mixture leaving a hazy solution on top.
- Percent Volatiles: N/A
- Viscosity: N/A

**9) STABILITY AND REACTIVITY**

- |  |  |
|--|--|
| <b>Stability:</b>                        | Stable.  |
| <b>Conditions to avoid(stability):</b>   | Avoid contamination with high concentrations of alkali at elevated temperatures.                           |
| <b>Hazardous decomposition products:</b> | Burning can produce carbon monoxide and / or carbon dioxide. Chlorine and hydrogen chloride may be formed. |
| <b>Hazardous polymerization:</b>         | Will not occur.  |

## 10) TOXICOLOGICAL INFORMATION

### Acute studies

Eye Effects: Moderate eye irritant.

Skin Effects: Dermal LD50 greater than 2000 mg / kg.

Oral Effects: Acute oral LD50 in rats between 4800 and 5500 mg / kg.

Inhalation Effects: Not determined.

### Miscellaneous toxicological information

Effects of Overexposure: This product may produce skin sensations (feelings or numbing and tingling) in certain individuals or moderate eye irritation, drying of skin. These sensations subside and disappear within a few hours. If ingested, the product may cause diarrhea, salivation, bloody nose, increased urination, decreased activity, tremors, and / or intermittent convulsions. Excessive inhalation causes headaches, dizziness, and / or nausea. The toxicological profile of this veterinary product has not been fully evaluated.

## 11) ECOLOGICAL INFORMATION

THIS PRODUCT IS TOXIC TO FISH. DO NOT ADD DIRECTLY TO WATER. DO NOT CONTAMINATE WATER WHEN CLEANING EQUIPMENT OR DISPOSING OF EQUIPMENT WASHWATERS.

13) **DISPOSAL CONSIDERATIONS:** Securely wrap original container in several layers of newspaper and discard in trash.

## 14) TRANSPORT INFORMATION:

**Shipping paper description:** Insecticides or Insect Repellents, O / T Agr., N.O.I., item 102130 Sub.2

15) **REGULATORY INFORMATION:** N / A

## 16) OTHER INFORMATION

**Hazard rating --** HEALTH: Not determined.  
FIRE: Not determined.  
REACTIVITY: Not determined.

### DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained therein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).

STAR HORSE PRODUCTS, INC. // MATERIAL SAFETY DATA SHEET