



# Shield Line

## **MATERIAL SAFETY DATA SHEET**

May 2, 2013

### **PART I** *What is the material and what do I need to know in an emergency?*

#### **1. PRODUCT IDENTIFICATION**

**TRADE NAME/MATERIAL NAME:** MedPride Zinc Oxide Ointment

**DESCRIPTION:** MedPride Zinc Oxide Ointment

**CHEMICAL NAME (for active ingredient):** Zinc Oxide

**CHEMICAL FAMILY (for active ingredient):** Zinc Compound

**HOW SUPPLIED:** Ointment

**PRODUCT USE:** Pharmaceutical for Human Use

#### **2. HAZARD IDENTIFICATION**

**EMERGENCY OVERVIEW: Product Description:** This product is a white ointment with a petroleum jelly odor. **Health Hazards:** The chief health hazard associated with exposure during normal use and handling is the potential for mild irritation of contaminated skin. Individuals who have had allergic reactions to products containing the active ingredient, Zinc Oxide, or any other components of this product may experience allergic reactions to this product. **Flammability Hazards:** This product is combustible. When involved in a fire, this material may decompose and produce irritating vapors and toxic compounds (including carbon oxides and zinc compounds). **Reactivity Hazards:** This product is not reactive. **Environmental Hazards:** This product has not been tested for environmental effects. **Emergency Considerations:** Emergency responders should wear appropriate protection for situation to which they respond.

#### **3. COMPOSITION and INFORMATION ON**

##### **INGREDIENTS** CHEMICAL NAME

Zinc Oxide

Wool Fat

Lanolin Anhydrous

White Soft Paraffin

### **PART II** *What should I do if a hazardous situation occurs?*

#### **4 FIRST-AID MEASURES**

Persons developing hypersensitivity reactions should receive medical attention. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Take a copy of label and MSDS to physician or health professional with the contaminated individual.

**SKIN EXPOSURE:** If adverse skin effects occur, discontinue use. Seek medical attention.



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**EYE EXPOSURE:** If this product contaminates the eyes, rinse eyes under gently running water. Use sufficient force to open eyelids and then "roll" eyes while flushing. Minimum flushing is for 20 minutes. The contaminated individual must seek medical attention if any adverse effect continues after rinsing.

**INHALATION:** If vapors of this product are inhaled, causing irritation, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention if adverse effect continues after removal to fresh air.

**INGESTION:** If this product is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or unable to swallow. If victim is convulsing, maintain an open airway and obtain immediate medical attention.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Pre-existing skin conditions may be aggravated by repeated overexposures to this product.

**RECOMMENDATIONS TO PHYSICIANS:** This product should only be given to patients by persons experienced in management of patients receiving the type of therapy intended for this product. Treat symptoms and eliminate exposure.

## 5. FIRE-FIGHTING MEASURES

**FLASH POINT:** Not established.

**AUTOIGNITION TEMPERATURE:** Not established.

**FLAMMABLE LIMITS (in air by volume, %):** Not applicable.

**FIRE EXTINGUISHING MEDIA:** Use extinguishing media appropriate for surrounding fire.

**UNSUITABLE FIRE EXTINGUISHING MEDIA:** None known.

**SPECIAL FIRE AND EXPLOSION HAZARDS:** This product is combustible. When involved in a fire, this material may decompose and produce irritating vapors and toxic compounds (including carbon oxides and zinc compounds).

**Explosion Sensitivity to Mechanical Impact:** Not sensitive.

**Explosion Sensitivity to Static Discharge:** Not sensitive.

**ADVICE TO FIRE-FIGHTERS:** Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus (SCBA) and full protective equipment. If protective equipment is contaminated by this product, it should be thoroughly washed with running water prior to removal of SCBA respiratory protection. Firefighters whose protective equipment becomes contaminated should thoroughly shower with warm, soapy water and should receive medical evaluation if they experience any adverse effects.



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## 6. ACCIDENTAL RELEASE MEASURES

**SPILL AND LEAK RESPONSE:** Proper protective equipment should be used. In the event of a spill, clear the area and protect people. The atmosphere must have levels of components lower than those listed in Section 8, (Exposure Controls and Personal Protective Equipment) if applicable, and have at least 19.5 percent oxygen before personnel can be allowed into the area without Self-Contained Breathing Apparatus (SCBA).

**Small Spills:** Wear goggles and gloves while wiping up small spills of this product with polypad or sponge.

**Large Spills:** Trained personnel following pre-planned procedures should handle non-incident releases. Access to the spill areas should be restricted. Protective apparel should be used with a respirator when there is any danger of mists or sprays being generated. Minimum Personal Protective Equipment should be rubber gloves, rubber boots, face shield, and Tyvek suit. Dispersing mists or sprays into surrounding air and possibly inhaling them is a serious matter and should be treated as such. Minimum level of personal protective equipment for releases in which the level of oxygen is less than 19.5% or is unknown must be Level B: triple-gloves (rubber gloves and nitrile gloves over latex gloves), chemical resistant suit and boots, hard hat, and Self-Contained Breathing Apparatus. Absorb spilled liquid using polypads or other suitable absorbent material. Prevent material from entering sewer or confined spaces, waterways, soil or public waters. Monitor area and confirm levels are below exposure limits given in Section 8 (Exposure Controls-Personal Protection), if applicable, before non-response personnel are allowed into the spill area.

Decontaminate the spill area using detergent and water. Place all spill residue in an appropriate container and seal. Dispose of in accordance with Federal, State, and local procedures (see Section 13, Disposal Considerations).

PART III How can I prevent hazardous situations from occurring?

## 7. HANDLING and USE

**WORK PRACTICES AND HYGIENE PRACTICES:** As with all chemicals, avoid getting this product ON YOU or IN YOU. Do not eat, drink, smoke, or apply cosmetics while handling this product. Wash hands thoroughly after handling this product or equipment and containers that contain this product. Follow SPECIFIC USE INSTRUCTIONS supplied with this product. Particular care in working with this product must be practiced in pharmacies and other preparation areas, during manufacture of this product, and during patient administration.

**STORAGE AND HANDLING PRACTICES:** Employees must be trained to properly use this product. Use of this product should be performed in a designated area for working with drugs. Ensure product is properly labeled. Store this product away from incompatible materials. Store this product in original container.

**PRODUCT PREPARATION INSTRUCTIONS FOR MEDICAL PERSONNEL:** Handle this material following standard medical practices and following the recommendations presented on the Package Insert.

**SPECIFIC USE(S):** This product is a human pharmaceutical. Follow all industry standards for use of this product.

**PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT:** When cleaning non-disposable equipment, wear latex or butyl rubber (double gloving is recommended), goggles, and lab coat. Wash equipment with soap and water. Wipe equipment down with damp sponge or polypad. Collect all rinsates and dispose of according to applicable U.S. Federal, State, and local hazardous waste disposal regulations or waste disposal regulations of Canada. All disposable items contaminated with this product should be disposed of properly.





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## 8. EXPOSURE CONTROLS - PERSONAL PROTECTION

**VENTILATION AND ENGINEERING CONTROLS:** Use with adequate ventilation. Follow standard medical product handling procedures. During decontamination of work surfaces, workers should wear the same equipment recommended in Section 6 (Accidental Release Measures) of this MSDS.

XPOSURE LIMITS/GUIDELINES: CHEMICAL				CAS #		EXPOSURE LIMITS IN AIR				
NAME										
ACGIH-TLVs		OSHA-PELs		NIOSH-RELS		NIOSH		OTHER		
TWA	STEL		TWA	STEL		TWA	STEL		IDLH	
mg/m3	mg/m3		mg/m3	mg/m3	mg/m3	mg/m3	mg/m3		mg/m3	
Zinc Oxide	1314-13-2	2 (resp. fraction)	10 (resp. fraction)	15 (total dust), 5 (resp. dust) 10 (total dust) [vacated 1989 PEL]	NE	5 (dust only)	15 ceiling (15 min)	500	DFG MAKs: TWA = 0.1 (resp. fraction), 2 (inhalable fraction) PEAK = Respirable Fraction: 4•MAK 15 min. average value, 1-hr interval, 4 per shift; Inhalable Fraction: 2•MAK 15 min. average value, 1-hr interval, 4 per shift	
Mineral Oil	8042-47-5	5 (inhalable fraction)	NE	NE	NE	NE	NE	NE	NE	
White Wax (Beeswax)	8006-40-4	NE	NE	NE	NE	NE	NE	NE	NE	
White Petrolatum	8009-03-8	NE	NE	NE	NE	NE	NE	NE	NE	

NE = Not Established See Section

16 for Definitions of Terms Used.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standards of Canada (including CSA Standard Z94.4-02 and CSA Standard Z94.3-07). Please reference applicable regulations and standards for relevant details.

**RESPIRATORY PROTECTION:** A respirator is not required for routine conditions of use of this product. If respiratory protection is needed, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, or Canadian CSA Standard Z94.4-02. Oxygen levels below 19.5% are considered IDLH by OSHA. In such atmospheres, use of a full-facepiece pressure/demand SCBA or a full facepiece, supplied air respirator with auxiliary self-contained air supply is required under OSHA's Respiratory Protection Standard (1910.134-1998).

**EYE PROTECTION:** Not normally needed during normal use. If necessary, refer to U.S. OSHA 29 CFR 1910.133 or Canadian CSA Standard Z94.3-07.

**HAND PROTECTION:** For situations in which prolonged skin contact is anticipated, double glove, using latex, nitrile, or rubber gloves. Check gloves for leaks. Wash hands before putting on gloves and after removing gloves. Gloves should cover the gown cuff. If necessary, refer to U.S. OSHA 29 CFR 1910.138 or appropriate standards of Canada.

**BODY PROTECTION:** During patient administration, use of lightweight cotton gown or other medical attire is recommended. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136 and the Canadian CSA Standard Z195-02, Protective Footwear.





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## 9. PHYSICAL and CHEMICAL PROPERTIES

**BOILING POINT:** > 121°C (250°F) **FREEZING/MELTING POINT:** Not established.

**EVAPORATION RATE (nBuAc = 1):** 0 **SOLUBILITY IN WATER:** Insoluble.

**VAPOR PRESSURE (air = 1):** 1 **SPECIFIC GRAVITY @20°C (water = 1):** 1.01

**ODOR THRESHOLD:** Not established. **pH:** Not established.

**COEFFICIENT WATER/OIL DISTRIBUTION:** Not established.

**APPEARANCE AND COLOR:** This product is a white ointment with a petroleum jelly odor.

**HOW TO DETECT THIS SUBSTANCE (warning properties):** The appearance of this product can be a distinguishing characteristic to identify it in event of accidental release.

## 10. STABILITY and REACTIVITY

**REACTIVITY/CHEMICAL STABILITY:** This product is stable.

**DECOMPOSITION PRODUCTS:** *Combustion:* If exposed to extremely high temperatures, thermal decomposition may generate irritating fumes and toxic gases (e.g., carbon oxides and zinc compounds). *Hydrolysis:* None known.

**MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE:** This product is generally compatible with other common materials in a medical facility. Acids, caustics, and other chemicals that could affect its performance should be avoided.

**HAZARDOUS POLYMERIZATION:** Will not occur.

**CONDITIONS TO AVOID:** Avoid heat, light, and contact with incompatible chemicals.

## PART IV Is there any other useful information about this material?

## 11. TOXICOLOGICAL INFORMATION

**SYMPTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE:** The health hazard information provided below is pertinent to medical employees handling this product in an occupational setting. This product is designed for application on the skin. The following paragraphs describe the symptoms of exposure by route of exposure.

### 11. TOXICOLOGICAL INFORMATION (Continued)

**INHALATION:** Although unlikely due to form of product, inhalation of vapors may slightly irritate the nose, throat, and lungs. Symptoms are generally alleviated upon breathing fresh air. **HEALTH HAZARD FLAMMABILITY HAZARD PHYSICAL HAZARD PROTECTIVE**

**EQUIPMENT** 1 EYES RESPIRATORY HANDS BODY (BLUE) (RED) For Routine Industrial Use and Handling Applications SEE SECTION 8 **HAZARDOUS MATERIAL IDENTIFICATION SYSTEM (YELLOW)** 10 SEE SECTION 8

**CONTACT WITH SKIN or EYES:** Skin contact may cause mild irritation. Eye contact can cause temporary blurred vision.

**SKIN ABSORPTION:** The components of this product are not known to be absorbed through the skin.

**INGESTION:** Ingestion is not a significant route of occupational overexposure. Acute ingestion of large quantities of this product or chronic ingestion caused by poor hygiene practices may cause nausea, vomiting, and diarrhea.

**INJECTION:** Though not anticipated to be a significant route of exposure for this product, injection (via punctures or lacerations by contaminated objects) may cause redness at the site of injection.

**GENERAL TOXICITY INFORMATION:** Persons using the product in therapeutic doses may experience temporary blurred vision and mild irritation.

**IRRITANCY OF PRODUCT:** This product may mildly to moderately irritate contaminated tissue.

**SENSITIZATION OF PRODUCT:** Individuals who have had allergic reactions to products containing the Zinc Oxide component of this product or any other components of this product may experience allergic reactions to this product.

**HEALTH EFFECTS OR RISKS FROM EXPOSURE: An Explanation in Lay Terms.** Overexposure to this product may cause the following health effects:

*Acute:* The primary health effects that may be experienced by medical personnel exposed to this product is mild irritation of contaminated skin.

Accidental ingestion may cause nausea, vomiting, and diarrhea. Eye contact will cause temporary blurred vision.

*Chronic:* None known.



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## **TARGET ORGANS:**

*Acute: Occupational Exposure: Skin, eyes. Therapeutic Doses: Skin.*  
*Chronic: Occupational Exposure: Skin. Therapeutic Doses: Skin.*

**TOXICITY DATA:** The toxicity data available for the active component of this product are presented in this MSDS. Additional data are available for the excipient components of this product, but are not presented in this MSDS; contact Shield Line for more information.

### **ZINC OXIDE:**

DNA Adduct (*Escherichia coli*) = 3000 ppm  
Cytogenetic Analysis (inhalation, rat) = 100 µg/m<sup>3</sup>  
Morphological Transformation (embryo, hamster) = 1 mg/L  
Unscheduled DNA Synthesis (embryo, hamster) = 1 mg/L  
Unscheduled DNA Synthesis (inhalation, guinea pig) = 5300 µg/m<sup>3</sup>/3 hours/6 days  
Sister Chromatid Exchange (embryo, hamster) = 300 µg/L  
Standard Draize Test (eye, rabbit) = 500 mg/24 hours; mild  
TCLo (inhalation, human) = 600 mg/m<sup>3</sup>; cough, dyspnea, other changes

### **ZINC OXIDE (continued):**

TDLo (oral, rat) = 6846 mg/kg/female 1–22 days after conception; Reproductive: Specific Developmental Abnormalities: homeostasis; stillbirth; Effects on Newborn: growth statistics  
TDLo (oral, rat) = 17431 mg/kg/90 days/continuous; Behavioral: changes in motor activity (specific assay)  
TCLo (inhalation, guinea pig) = 5900 µg/m<sup>3</sup>/3 hours/3 days/intermittent; change in blood or tissue levels: phosphatases, dehydrogenases  
TCLo (inhalation, guinea pig) = 4600 µg/m<sup>3</sup>/3 hours/6 days/intermittent; other changes, changes in lung weight

### **ZINC OXIDE (continued):**

TDLo (oral, chicken) = 32,203 mg/kg/4 weeks/continuous; changes in growth hormone; evidence of thyroid hypofunction; weight loss or decreased weight gain  
TDLo (oral, domestic mammal) = 3584 mg/kg/4 weeks/intermittent; changes in structure or function of endocrine pancreas; changes in serum composition; changes in metals, not otherwise specified  
LDLo (oral, human) = 500 mg/kg  
LD (oral, rat) > 8437 mg/kg  
LD<sub>50</sub> (intraperitoneal, rat) 240 mg/kg  
LD<sub>50</sub> (oral, mouse) = 7950 mg/kg  
LC<sub>50</sub> (inhalation, mouse) = 2500 mg/m<sup>3</sup>

**CARCINOGENIC INFORMATION:** The incipient components of this product are listed by agencies tracking the carcinogenic potential of chemical compounds, as follows:

**MINERAL OIL:** IARC-3 (Not Classifiable as to Carcinogenicity to Humans)

**ZINC OXIDE:** EPA-II (Inadequate Information to Assess Carcinogenic Potential); EPA-D (Not Classifiable as to Carcinogenicity to Humans); EPA-I (Data are Inadequate for an Assessment of Carcinogenic Potential)

The remaining components of this product are not found on the following lists: U.S. EPA, U.S. NTP, U.S. OSHA, U.S. NIOSH, GERMAN MAK, IARC, or ACGIH and therefore are neither considered to be nor suspected to be cancer-causing agents by these agencies.

**REPRODUCTIVE TOXICITY INFORMATION:** Studies have not been performed to evaluate the mutagenic, embryotoxic, teratogenic or reproductive toxicity potential of this product.

**ACGIH BIOLOGICAL EXPOSURE INDICES (BEIs):** Currently, there are no ACGIH Biological Exposure Indices (BEIs) determined for components of this product.

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate  
3 = Serious 4 = Severe \* = Chronic hazard

## **12. ECOLOGICAL INFORMATION**

*ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.*

**MOBILITY:** This product has not been tested for soil absorption or mobility.

**PERSISTENCE AND BIODEGRADABILITY:** This product has not been tested for persistence or biodegradability.

**BIOACCUMULATION:** This product has not been tested for bioconcentration.

**ECOTOXICITY:** No specific information is currently available on the effect of this product on plants or animals in the environment. This product may be harmful to contaminated terrestrial and aquatic plant and animal life, especially in large quantities.

**ENVIRONMENTAL EXPOSURE CONTROLS:** Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

**OTHER ADVERSE EFFECTS:** No component of this product is known to have ozone depletion potential.





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### 13. DISPOSAL CONSIDERATIONS

**DISPOSAL METHODS:** It is the responsibility of the generator to determine at the time of disposal whether the product meets the criteria of a hazardous waste per regulations of the area in which the waste is generated and/or disposed of. Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. Shipment of wastes must be done with appropriately permitted and registered transporters.

**DISPOSAL CONTAINERS:** Waste materials must be placed in and shipped in appropriate 5-gallon or 55-gallon poly or metal waste pails or drums. Permeable cardboard containers are not appropriate and should not be used. Ensure that any required marking or labeling of the containers be done to all applicable regulations.

**PRECAUTIONS TO BE FOLLOWED DURING WASTE HANDLING:** Wear proper protective equipment when handling waste materials.

**PREPARING WASTES FOR DISPOSAL:** Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations or with regulations of Canada. This product, if unaltered by handling, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. All gowns, gloves, and disposable materials used in the preparation or handling of this drug should be disposed of in accordance with established hazardous waste disposal procedures. Handle as if capable of transmitting infectious agents. Incineration is recommended. Reusable equipment should be cleaned with soap and water.

**U.S. EPA WASTE NUMBER:** Not applicable to wastes consisting only of this product.

### 14. TRANSPORTATION INFORMATION

**U.S. DEPARTMENT OF TRANSPORTATION SHIPPING REGULATIONS:** This product is not classified as hazardous under regulations of U.S. DOT 49 CFR 172.101.

**TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS:** This product is not classified as Dangerous Goods, per regulations of Transport Canada.

### 15. REGULATORY INFORMATION

#### UNITED STATES REGULATIONS:

**U.S. SARA REPORTING REQUIREMENTS:** The components of this product are not subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act.

**U.S. SARA THRESHOLD PLANNING QUANTITY:** There are no specific Threshold Planning Quantities for any component of this product. The default Federal MSDS submission and inventory requirement filing threshold of 10,000 lb (4,540 kg) therefore applies, per 40 CFR 370.20.

**U.S. CERCLA REPORTABLE QUANTITIES (RQ):** Not applicable.

**U.S. TSCA INVENTORY STATUS:** This product is regulated by the Food and Drug Administration; it is not subject to requirements under TSCA.

**CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65):** The components of this product are not on the California Proposition 65 lists.

#### CANADIAN REGULATIONS:

**CANADIAN DSL/NDL INVENTORY STATUS:** This product regulated by the Therapeutic Products Programme (TPP) of Health Canada and so it is exempt from requirements of the DSL/NDL Inventory.

**CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS:** The components of this product are not on the CEPA Priorities Substances Lists.

**CANADIAN WHMIS CLASSIFICATION AND SYMBOLS:** The WHMIS Requirements of the Hazardous Products Act does not apply in respect of the advertising, sale or importation of any cosmetic, device, drug or food within the meaning of the Food and Drugs Act.

### 16. OTHER INFORMATION

**ANSI LABELING (Based on 129.1, Provided to Summarize Occupational Exposure Hazards):** **CAUTION!** MAY CAUSE SKIN AND EYE IRRITATION. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Wear gloves, goggles, and appropriate body protection during handling or administration.

**ANSI LABELING (continued):** **FIRST-AID:** In case of contact, flush skin or eyes with plenty of water. If adverse respiratory reaction occurs from allergic reaction, give oxygen and seek immediate medical attention. If ingested, DO NOT induce vomiting—seek immediate medical attention. **IN CASE OF FIRE:** Use water fog, dry chemical, CO<sub>2</sub>, or “alcohol” foam. **IN CASE OF SPILL:** Wipe up spilled product. Place residual in appropriate container and seal. Dispose of according to applicable regulations. Consult Material Safety Data Sheet for additional information.