The Dow Chemical Company, Midland, MI 48674 Emergency Phone: 517-636-4400

Product Code: 27125

Product Name: PELADOW (R) PREMIER SNOW AND ICE MELTER CALCIA M GRUM CHLORIDE PELLETS

Effective Date: 10/19/92 Date Printed: 09/12/94 MSDS: 001452

1. INGREDIENTS: (% w/w, unless otherwise noted)

   Calcium chloride  CAS# 010043-52-4  90-92%
   Sodium chloride   CAS# 007647-14-5  1- 2%
   Potassium chloride CAS# 007447-40-7  2- 3%
   Strontium chloride CAS# 010476-85-4  1%
   Water             CAS# 007732-18-5  2- 6%

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). In addition, other substances not 'Hazardous' per this OSHA Standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard.

2. PHYSICAL DATA:

   MELTING POINT: Approx. 446F, 230C
   BOILING POINT:  388F, 198C
   VAP. PRESS:  0.009 mmHg @ 20C
   VAP. DENSITY: Not applic.
   SOL. IN WATER: Very soluble.
   SP. GRAVITY: 2.2
   APPEARANCE: White to off white, solid - pellets.
   ODOR: Odorless.

3. FIRE AND EXPLOSION HAZARD DATA:

   FLASH POINT: Not applicable.
   METHOD USED: Not applicable.

   FLAMMABLE LIMITS
   LFL: Not applicable.
   UFL: Not applicable.

   EXTINGUISHING MEDIA: Non-combustible.

   FIRE & EXPLOSION HAZARDS: None.

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3. FIRE AND EXPLOSION HAZARD DATA: (CONTINUED)

FIRE-FIGHTING EQUIPMENT: Wear positive pressure self-contained breathing apparatus.

4. REACTIVITY DATA:

STABILITY: (CONDITIONS TO AVOID) Decomposes >350°F.

INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID) Calcium chloride will corrode most metals exposed to air; attack aluminum (and its alloys) and yellow brass; react with sulfuric acid to form hydrogen chloride which is corrosive, irritating, and reactive; give an exothermic reaction with water-reactive materials such as sodium; result in a runaway polymerization reaction with methyl vinyl ether (Bretherick, 1979); and, in solution form react with zinc (galvanizing) to yield hydrogen gas which is explosive (Ibid). (Bretherick, L., 1979, Handbook of Reactive Chemical Hazards, 2nd Ed.).

HAZARDOUS DECOMPOSITION PRODUCTS: Not applicable.

HAZARDOUS POLYMERIZATION: Will not occur.

5. ENVIRONMENTAL AND DISPOSAL INFORMATION:

ACTION TO TAKE FOR SPILLS/LEAKS: Losses incidental to correct applications of this product in its intended uses are not expected to be harmful to the environment. Wear appropriate safety apparel during clean-up—see Section 8. Avoid entry of large amount of product into sewers, natural waters, and drinking water sources. Due to possible harmful effects, avoid contact with vegetation, animals, and fish life. Recover quickly into suitable, dry, sealable containers if reusing. Small quantities may be flushed away with plenty of water. Walking surfaces may remain wet longer due to moisture being

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5. ENVIRONMENTAL AND DISPOSAL INFORMATION: (CONTINUED)

held by spilled product—avoid by thoroughly water washing surfaces.

DISPOSAL METHOD: Comply with federal, state, and local laws, regulations and procedures. Contact manufacturer and authorities for detailed information. Product as sold is not a RCRA listed or characteristic hazardous waste.

6. HEALTH HAZARD DATA:

EYE: May cause moderate to severe eye irritation with corneal injury, which may be slow to heal. When dissolving, the heat produced may cause more intense effects as well as thermal burns.

SKIN CONTACT: Short single exposure not likely to cause significant skin irritation. Prolonged or repeated exposure may cause skin irritation, even a burn. May cause more severe response if skin is damp and/or abraded, or if material is confined to skin. When dissolving, the heat produced may cause more intense effects as well as thermal burns. DOT classification: Noncorrosive.

SKIN ABSORPTION: A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts. The LD50 for skin absorption in rabbits is >5000 mg/kg.

INGESTION: Single dose oral toxicity is low. The oral LD50 for rats is in the range of 900-2100 mg/kg for calcium chloride on a 100% basis. Ingestion may cause gastrointestinal irritation or ulceration.

INHALATION: Vapors are unlikely due to physical properties. Dust may cause irritation to upper respiratory tract.

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6. HEALTH HAZARD DATA: (CONTINUED)

SYSTEMIC & OTHER EFFECTS: The components of this product are not listed by IARC, NTP, or OSHA as a carcinogen for hazard communication purposes. Results of in vitro mutagenicity tests have been negative for calcium chloride.

7. FIRST AID:

EYES: Irrigate with flowing water immediately and continuously for 15 minutes. Consult medical personnel.

SKIN: Wash off in flowing water or shower.

INGESTION: If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: Remove to fresh air if effects occur. Consult a physician.

NOTE TO PHYSICIAN: If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

8. HANDLING PRECAUTIONS:

EXPOSURE GUIDELINE(S): Dow IHG is 10 mg/m3 for calcium chloride, sodium chloride and potassium chloride. There is no OSHA PEL or ACGIH TLV for calcium chloride.

VENTILATION: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

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8. HANDLING PRECAUTIONS: (CONTINUED)

RESPIRATORY PROTECTION: Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use an approved air-purifying respirator. In dusty atmospheres, use an approved dust respirator.

SKIN PROTECTION: For brief contact, no precautions other than clean body-covering clothing should be needed. Use protective clothing impervious to this material. Selection of specific items such as gloves, boots, apron, or full-body suit will depend on operation. If skin comes in contact with contaminated clothing, remove this clothing immediately, wash skin area with soap and water, and launder clothing before reuse.

EYE PROTECTION: For dusty operations or when handling solutions of the material, wear chemical goggles. Eye wash fountain should be located in immediate work area.

9. ADDITIONAL INFORMATION:

SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Avoid eye and prolonged skin contact. ALWAYS USE COOL WATER (TEMPERATURE LESS THAN 80F, 27C) WHEN DISSOLVING CALCIUM CHLORIDE. HEAT DEVELOPED BY SOLUTIONS IS VERY HIGH DURING DISSOLVING AND MIXING. When exposed to the atmosphere, calcium chloride will pick up water and form a solution. Leather clothing and shoes will be damaged by calcium chloride.

MSDS STATUS: Revised sections 1, 7, and 8.
REGULATORY INFORMATION:  (Not meant to be all-inclusive--selected regulations represented.)

NOTICE:  The information herein is presented in good faith and believed to be accurate as the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations. See MSD Sheet for health and safety information.

U.S. REGULATIONS

SARA HAZARD CATEGORY:  This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

An immediate health hazard

CANADIAN REGULATIONS

WHMIS INFORMATION: The Canadian Workplace Hazardous Materials Information System (WHMIS) Classification for this product is:

D2B

CANADIAN TDG INFORMATION: For guidance, the Transportation of Dangerous Goods Classification for this product is:

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REGULATORY INFORMATION (CONTINUED)

Not regulated

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