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HILLSBORO ELEMENTARY SCHOOLS
215 S.E. 5th Ave.
HILLSBORO, OR 97123

MATERIAL SAFETY DATA SHEET CM 0221

PURSELL INDUSTRIES, INC.

MATERIAL SAFETY DATA SHEET

P. O. BOX 540
SYLACAUGA, ALABAMA 35150

DATE: June, 1992 MSDS NO.: N-73 NEW ☒ REVISED ☐ REPLACES MSDS NO.:

SECTION 1 – PRODUCT IDENTIFICATION

PRODUCT NAME: Sulfurkote II

CHEMICAL NAME: Urea, Sulfur, Hydrocarbon Wax Mixture, Amorphous Silica

COMMON NAME, SYNONYMS: Coated Di-amide of Carbonic Acid (Carbamide, Carbonyl-diamide), SCU

GRADE: 31-0-0 to 40-0-0

CAS NUMBER: None Established (mixture)

CHEMICAL FORMULA: $CO(NH_2)_2 + S$

CHEMICAL FAMILY: Amide, Sulfur

SECTION II – PHYSICAL DATA

BOILING POINT: Sulfur (rhombic) 444.6°C(832.3°F)
Urea (decomposes)
Wax (congeals)

MELTING POINT: Sulfur (rhombic) 112.8°C (235.0°F)
Urea 132.7°C (270.9°F)
Wax 68°C (154.4°F)

VAPOR PRESSURE: Negligible

SPECIFIC GRAVITY: Urea 1.32
Sulfur 2.07
Wax 0.8

VAPOR DENSITY: Negligible

SOLUBILITY IN WATER: Urea; 100 parts in 100 parts water at 17°C

PERCENT VOLATILE BY VOLUME: N/A

EVAPORATION RATE: Negligible

pH: Urea (10% solution) 7.2

OTHER: Bulk Density: 47-49 lb./ft³

FLASH POINT: Sulfur 188°C o/c
Wax 200°C nd

ANGLE OF REPOSE: 30-32°

APPEARANCE AND ODOR: Small yellow to beige solid spheres. Very low odor level, slight hydrocarbon, slight sulfur, slight hydrogen sulfide (rotten egg) and ammonia odors possible.

SECTION 111 - COMPOSITION

TYPICAL COMPOSITION	%	CAS NUMBER
Urea	67.0 to 68.0	57-13-6
Sulfur	29.5 to 10.0	7704-34-9
Sealant	2.5 to 1.5	Mixture

SECTION IV – HEALTH DATA

IMMEDIATE FIRST AID PROCEDURES:

EYES: Flush thoroughly with water. Seek medical attention if irritation persists.

SKIN: Wash thoroughly with soap and water.

INHALATION: Remove to fresh air. If discomfort continues, seek medical attention.

INGESTION: If swallowed and the person is conscious, give a large amount of water to drink and make person vomit. Seek medical attention.

HEALTH EFFECTS:

EYES: Urea can irritate eyes. Sulfur is a human eye irritant at 6 ppm. Conditioner (diatomaceous earth) can irritate eyes.

SKIN: Urea may irritate skin. Conditioner can dry out skin and cause chafing.

INHALATION: No incidents of dust inhalation reported.

INGESTION: The LDLo (lethal dose low) administered orally to domestic animals is 511 mg/kg.

EXPOSURE STANDARD: None established. THE OSHA Nuisance dust limit of 15 mg/m³ or the ACGIH nuisance dust TLV of 10 mg/m³ for the eight-hour time-weighted average applies.

SYMPTOMS OF OVEREXPOSURE:

ACUTE: See prior Health Effects section. Victim may exhibit an eczematous reaction (rash) from skin contact with sulfur.

CHRONIC: Chronic inhalation of sulfur dust can cause irritation of mucous membranes.

NOTES TO PHYSICIAN: In a fire, dangerous levels of sulfur oxides, hydrogen sulfide and nitrogen oxides may be generated. Short-term exposure to smoke, fumes, and gases can lead to irreversible lung injury without early signs and symptoms.

FOR HEALTH EMERGENCIES CALL YOU LOCAL POISON CONTROL CENTER

SECTION V – FIRE AND EXPLOSION PROTECTION

FLASH POINT: Not applicable

FLAMMABLE LIMITS: Not applicable

AUTOIGNITION TEMPERATURES: Not applicable

EXTINGUISHING MEDIA: Water, sand, or fine earth. Steam smothering can be used in relatively small enclosures. Material is essentially non-flammable.

FIRE FIGHTING PROCEDURES: Wear full protective clothing and self-contained breathing apparatus. Use agents appropriate to surrounding materials to extinguish fire. Evacuate downwind if large quantities are involved in fire.

UNUSUAL FIRE OR EXPLOSION HAZARDS: Urea may decompose to cyanuric acid, ammonia, hydrogen cyanide and nitrogen oxides. Sulfur can produce sulfur oxides. Hydrogen sulfide is a reaction product and is toxic and explosive. Sulfur dust will explode at a minimum concentration of 35 g/m³ air.

SECTION VI – SPECIAL PROTECTION INFORMATION

VENTILATION: Provide local or general ventilation to keep dust below OSHA nuisance dust limit of 15 mg/m³.

EYES: Use of safety glasses (preferably with side shields) is recommended.

SKIN: No protection normally required. If irritation occurs, long sleeves and impervious gloves should be worn.

RESPIRATORY: A NIOSH - approved respirator should be used when dust exposure exceeds the OSHA standard of 15 mg/m³.

OTHER: Washing facilities should be available.

SECTION VII – REACTIVITY DATA

STABILITY: Compound is stable. Hazardous polymerization will not occur.

INCOMPATIBILITY: Separate from inorganic acids, hypochlorides, alkalies, chlorates, nitrates and other oxidizing materials. Urea is corrosive to carbon steel, copper, and copper alloys.

HAZARDOUS DECOMPOSITION PRODUCTS: Above 132.7°C(271°F) urea decomposes to biuret, cyanuric acid, cyanic acid, ammonia, and carbon dioxide. Sulfur forms sulfur oxides when burned. Hydrogen sulfide is a reaction product. Nitrogen oxides may form in fire conditions. Hydrogen cyanide may be formed.

CONDITIONS TO AVOID: Avoid heating above 95°C(203°F).

SECTION VIII – STORAGE, DISPOSAL AND SPILL PROCEDURES

STORAGE: Guard against dust accumulation. Keep dry. Wet urea can cause slippery conditions. Do not store with Ammonium Nitrate as the mixture absorbs moisture quickly.

PROCEDURE IN CASE OF SPILL OR RELEASE: Sulfur-coated urea is a plant food. However, large spills could possibly kill vegetation or cause illness in animals. Contamination of waterways may cause fish kills. Prevent large quantities from contacting vegetation or waterways. Keep animals away from large spills.

REPORTABLE QUANTITY: Non established.

WASTE DISPOSAL METHOD: If uncontaminated, recover and reuse as product. Consult State or Federal environmental regulatory agencies for acceptable disposal procedures and disposal locations. Disposal in streams or sewers may be contrary to regulations. If contaminated with other materials, the nature and extent of contamination may require use of specialized disposal methods.

SECTION IX – TRANSPORTATION REQUIREMENTS

D.O.T. NAME: Not applicable

UN/NA NO.: Not applicable

D.O.T. CLASSIFICATION: Not listed by D.O.T. regulations

LABEL REQUIRED: None

FOR TRANSPORTATION EMERGENCIES CALL CHEMTREC 1-800-424-9300

SECTION X – ADDITIONAL INFORMATION

NOTICE FROM PURSELL INDUSTRIES
CONCERNING THIS MATERIAL SAFETY DATA SHEET

THE INFORMATION CONTAINED HEREIN IS OFFERED ONLY AS A GUIDE TO THE HANDLING OF THIS SPECIFIC MATERIAL. SINCE SUCH INFORMATION DOES NOT RELATE TO USE OF THE MATERIAL WITH ANY OTHER MATERIAL OR IN ANY PROCESS, ANY PERSON USING THIS INFORMATION MUST DETERMINE FOR HIMSELF ITS SUITABILITY FOR ANY PARTICULAR APPLICATION. THE BUYER AND USER ASSUMES ALL RISK AND LIABILITY OF USE, STORAGE AND/OR HANDLING OF THIS PRODUCT NOT IN ACCORDANCE WITH THE TERMS OF THE PRODUCT LABEL.

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