SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION

PRODUCT NAME: EUPROPIUM SULFIDE (CHUNKS) 3-6 mm PCS, 3N EU5336

US D.O.T. / UN NAME: UN 3178 FLAMMABLE SOLID, INORGANIC N.O.S. (EUPROPIUM SULFIDE), 4.1, II

RECOMMENDED USES: APPLICATIONS FOR SEMICONDUCTOR INDUSTRY

COMPANY: UNITED MINERAL & CHEMICAL CORPORATION

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Outside USA: +1 703-527-3887

SECTION 2 - HAZARD IDENTIFICATION

GHS HAZARD CLASSIFICATION:
FLAM. SOL. H228 FLAMMABLE SOLID

GHS LABEL ELEMENTS:
SIGNAL WORD: DANGER
LABEL CODES / PICTOGRAMS: GHS02 FLAME
HAZARD STATEMENTS: H228 FLAMMABLE SOLID

PRECAUTIONARY STATEMENTS:

PREVENTION: P210 KEEP AWAY FROM HEAT/SPARKS/OPEN FLAMES/HOT SURFACES. -- NO SMOKING
P240 GROUND/BOND CONTAINER AND RECEIVING EQUIPMENT
P241 USE EXPLOSION-PROOF ELECTRICAL/VENTILATING/LIGHTING/PROCESSING EQUIPMENT
P280 WEAR PROTECTIVE GLOVES/EYE PROTECTION/FACE PROTECTION
P273 AVOID RELEASE TO THE ENVIRONMENT

RESPONSE: P370+378: IN CASE OF FIRE: USE FLOODING QUANTITY OF WATER TO EXTINGUISH FLAMES. (DO NOT USE HIGH PRESSURE WATER JET) THEN SMOOTHER WITH WET LIME-FREE SAND OR CLAY.

DISPOSAL: P501 DISPOSE OF CONTENTS/CONTAINER IN ACCORDANCE WITH ALL LOCAL/REGIONAL/NATIONAL/INTERNATIONAL REGULATIONS

OTHER HAZARDS / U.S. - HAZARDS NOT OTHERWISE CLASSIFIED / UN GHS - OTHER HAZARDS WHICH DO NOT RESULT IN CLASSIFICATION:
IF PROCESSING TO DUST/POWDER -- MAY FORM COMBUSTIBLE DUST CONCENTRATIONS IN AIR.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL COMPOSITION:
COMPONENTS:
EUROPIUM SULFIDE
CAS NO. 12020-65-4

SYNONYMS:
EUROPIUM SULFIDE
PARAMAGNETIC COMPOUND

SECTION 4 - FIRST AID MEASURES

FIRST AID:

SKIN: IF ON SKIN: WASH WITH PLENTY OF SOAP AND WATER. IF IRRITATION OR MOLTEN BURNS SHOULD OCCUR AS A RESULT OF PROCESSING OPERATIONS: GET IMMEDIATE MEDICAL ADVICE/ATTENTION.

EYES: DO NOT RUB EYES. IF PROCESSING DUSTS/PARTICULATES GET IN EYES; RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE RINSING. IF EYE IRRITATION PERSISTS OR A METAL PARTICLE IS LODGED IN THE EYE: GET IMMEDIATE MEDICAL ADVICE/ATTENTION.

INHALATION: IF PROCESSING PRODUCES POWDER OR METAL FUME THAT IS INHALED: REMOVE VICTIM TO FRESH AIR AND KEEP AT REST IN A POSITION COMFORTABLE FOR BREATHING. CALL A POISON CENTER OR DOCTOR/PHYSICIAN IF YOU FEEL UNWELL.

INGESTION: IN THE EVENT THE FORMED PIECES ARE SWALLOWED, CONTACT A PHYSICIAN IMMEDIATELY. IF CONSCIOUS, DRINK PLENTY OF WATER, INDUCE VOMITING ONLY UNDER THE DIRECTION OF MEDICAL PERSONNEL.

MOIST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED
ACUTE: NO EFFECTS EXPECTED WHEN USED IN FORM SUPPLIED. IF DUSTS OR FUMES ARE GENERATED IN PROCESSING, THEN INHALATION OF POWDER/PARTICULATE OR FUME MAY CAUSE RESPIRATORY IRRITATION CAUSING COUGH, THROAT DRYNESS, HEADACHE, CHEST PAIN, NAUSEA, OR VOMITING.
INGESTION MAY CAUSE SEVERE IRRITATION OF THE STOMACH, PULMONARY PROBLEMS, HEADACHE, DIZZINESS, NAUSEA AND VOMITING. CONTACT WITH SHARP PIECES MAY CAUSE MECHANICAL SKIN AND EYE IRRITATION, AND POSSIBLE EYE ABRASIONS. CONTACT WITH HOT OR MOLTEN MATERIAL CAN CAUSE THERMAL BURNS.
CHRONIC: NONE EXPECTED IN FORM SUPPLIED.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT IF NECESSARY:
CALL A POISON CENTER OR DOCTOR/PHYSICIAN IF EXPOSED PERSON FEELS UNWELL.

N/A = NOT APPLICABLE
SECTION 5 – FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA:
- WATER: (x)
- FOAM: (x)
- CO₂: (x)
- DRY CHEMICAL: (x)

SPECIFIC HAZARDS IN CASE OF FIRE:
HARMFUL FUMES CAN BE FORMED IN A FIRE.

SPECIAL PROTECTIVE EQUIPMENT & PRECAUTION FOR FIRE FIGHTERS:
SELF-CONTAINED BREATHING APPARATUS OPERATED IN THE PRESSURE DEMAND MODE AND FULL CHEMICAL RESISTANT PROTECTIVE GEAR MUST BE WORN.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: WEAR FULL PROTECTIVE EQUIPMENT (SEE SECTION 8). ELIMINATE ALL SOURCES OF HEAT & ILLUMINATION. AVOID THE GENERATION OF DUST.

ENVIRONMENTAL PRECAUTIONS: DO NOT RELEASE TO DRAINS, SEWERS AND OTHER BODIES OF WATER.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN UP: SOLID PIECES MAY BE PICKED UP WITH ORDINARY HOUSEKEEPING EQUIPMENT. PLACE SOLIDS IN LABELED CONTAINER FOR PROPER DISPOSAL. AVOID GENERATING DUST. MOLTEN MATERIAL SHOULD BE ALLOWED TO COOL/HARDEN BEFORE CLEANING UP.

SECTION 7 – HANDLING & STORAGE

PRECAUTIONS FOR SAFE HANDLING: FOR INDUSTRIAL USE ONLY - WEAR PROTECTIVE GLOVES AND GEAR SUITABLE FOR YOUR PROCESSING OPERATION. WASH THOROUGHLY AFTER HANDLING.

CONDITIONS FOR SAFE STORAGE, INCLUDING INCOMPATIBILITIES: KEEP IN TIGHTLY CLOSED CONTAINER. STORE IN A COOL, DRY AREA. PROTECT AGAINST PHYSICAL DAMAGE AND AVOID CONTACT WITH INCOMPATIBLES. CONTAINERS OF THE MATERIAL MAY CONTAIN RESIDUAL DUST OR SOLIDS. FINE POWDER AND DUSTS MAY BE FLAMMABLE - AVOID SPARKS, HEAT, SOURCES OF IGNITION.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

CONTROL PARAMETERS:
- EXPOSURE LIMITS: U.S. OSHA PEL:
  - NONE ESTABLISHED FOR FORMS SUPPLIED.
- U.S. ACGIH TLV:
  - NONE ESTABLISHED FOR FORMS SUPPLIED.

APPROPRIATE ENGINEERING CONTROLS:
USE LOCAL / MECHANICAL EXHAUST FOR FORM SUPPLIED; FOR PROCESSING TO POWDER/PARTICULATE - USE EXPLOSION-PROOF VENTILATION.

PERSONAL PROTECTIVE EQUIPMENT:
- RESPIRATORY PROTECTION:

- HAND PROTECTION:
  USE GLOVES SUITABLE TO OPERATIONS (SUCH AS THERMAL PROOF IF HEATING, ETC.)

- EYE PROTECTION:
  SAFETY GOGGLES OR GLASSES SUITABLE TO OPERATIONS; FACE SHIELD FOR MOLTEN MATERIAL OPERATIONS.

- OTHER PROTECTIVE EQUIPMENT:
  LABCOAT; COVERALLS TO PROTECT SKIN (FLAME RETARDANT CLOTHING IF MATERIAL IS HEATED); ACCESS TO AN EYEWASH FOUNTAIN AND SAFETY DRENCH SHOWER IF OPERATIONS WARRANT IT.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

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SECTION 10 – STABILITY AND REACTIVITY

REACTIVITY:
SEE HAZARDOUS REACTIONS BELOW

CHEMICAL STABILITY:
STABLE IN SOLID FORM SUPPLIED AT AMBIENT TEMPERATURES

POSSIBILITY OF HAZARDOUS REACTIONS:
NO HAZARDOUS REACTIONS DETERMINED.

CONDITIONS TO AVOID:
GENERATING DUST IN PROCESSING; OPEN STORAGE (MOISTURE) AND HIGH HEAT OR OPEN FLAME.

INCOMPATIBLE MATERIALS:
NO INFORMATION KNOWN

HAZARDOUS DECOMPOSITION PRODUCTS:
THERMAL DECOMPOSITION WILL NOT OCCUR IF STORED ACCORDING TO INSTRUCTIONS
SECTION 11 – TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS:

SKIN: NO EFFECTS ARE EXPECTED IN FORMS SUPPLIED. IF PROCESSING TO DUST/PowDER, MAY CAUSE IRRITATION TO SKIN AS A METAL POWDER. IF PROCESSING TO MOLTEN FORM, THERMAL BURN MAY OCCUR ON CONTACT WITH METAL.

EYES: NO EFFECTS ARE EXPECTED IN FORMS SUPPLIED. IF PROCESSING TO DUST/PowDER, MAY CAUSE IRRITATION TO EYES AS A METAL POWDER.

INHALATION: INHALATION IS NOT LIKELY IN THE SOLID FORMS SUPPLIED. IF DUSTS / POWDER / FUMES ARE GENERATED IN PROCESSING, THEN INHALATION MAY CAUSE RESPIRATORY TRACT IRRITATION, NAUSEA, & POSSIBLE VOMITING.

INGESTION: INGESTION IS NOT LIKELY IN THE SOLID FORMS SUPPLIED, HOWEVER, IF SWALLOWED, MAY CAUSE IRRITATION TO THE GASTROINTESTINAL TRACT.

CHRONIC: NO ADVERSE EFFECTS ARE KNOWN FOR FORM SUPPLIED.

ACUTE TOXICITY: TEST DATA IS NOT AVAILABLE

SKIN CORROSION / IRRITATION: TEST DATA IS NOT AVAILABLE BUT EXPECTED TO BE NON-IRRITATING IN FORM SUPPLIED

SERIOUS EYE DAMAGE / IRRITATION: TEST DATA IS NOT AVAILABLE; PARTICULATE MAY CAUSE MECHANICAL IRRITATION

RESPIRATORY OR SKIN SENSITIZATION: DATA IS NOT AVAILABLE; NOT EXPECTED TO BE A SENSITIZER

GERM CELL MUTAGENICITY: TEST DATA IS NOT AVAILABLE

CARCINOGENICITY: U.S. LISTED CARCINOGEN: NONE (X) OSHA () NTP () IARC () OTHER ()

REPRODUCTIVE TOXICITY: NO TEST DATA AVAILABLE

SPECIFIC TARGET ORGAN TOXICITY: NO DATA AVAILABLE

ASPIRATION HAZARD: DATA IS NOT AVAILABLE; NOT EXPECTED TO BE AN ASPIRATION HAZARD IN FORMS SUPPLIED

SECTION 12 – ECOLOGICAL INFORMATION

ECOTOXICITY: DO NOT RELEASE TO THE ENVIRONMENT OR WATERWAYS. TEST DATA IS NOT AVAILABLE TO DETERMINE THE FULL TOXICITY EFFECTS ON THE ENVIRONMENT,

TOXICITY - AQUATIC: NO TEST DATA AVAILABLE FOR METAL FORM

TOXICITY - TERRESTRIAL: NO DATA AVAILABLE

PERSISTANCE & DEGRADABILITY: NO TEST DATA AVAILABLE; NOT EXPECTED TO BE BIODEGRADABLE

BIOACCUMULATIVE POTENTIAL: NO TEST DATA AVAILABLE; NOT EXPECTED TO BE BIOAVAILABLE/ BIOACCUMULATE

MOBILITY IN SOIL: NO TEST DATA AVAILABLE; NOT EXPECTED TO BE MOBILE

OTHER ADVERSE EFFECTS: NO DATA AVAILABLE

SECTION 13 – DISPOSAL CONSIDERATIONS

DISPOSAL METHODS:
DO NOT RELEASE TO THE ENVIRONMENT. DISPOSE OF IN SEALED CONTAINERS, USING A LICENSED CHEMICAL WASTE HAULER IN ACCORDANCE WITH ALL LOCAL, STATE, FEDERAL / NATIONAL LAWS. NOTE: SOLIDS CAN BE DISPOSED OF AS NON-HAZARDOUS MATERIAL. PROCESSING TO OTHER FORMS/ COMPOUNDS WILL NEED TO BE EVALUATED BASED ON END STATE OF WASTE.

SECTION 14 – TRANSPORT INFORMATION

BY ROAD OR RAIL - U.S. D.O.T. REGULATED: YES (X) NO () RQ: (N/A)

IF REGULATED, UN PROPER SHIPPING NAME:

UN 3178 FLAMMABLE SOLID, INORGANIC N.O.S. (EUROPIUM SULFIDE), 4.1, II
HAZARD CLASS: (4.1)
SECTION 15 – REGULATORY INFORMATION

U.S. TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER THE REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

U.S. SARA TITLE III, SECT. 313: LISTED () NOT LISTED (X)

U.S. RCRA HAZARDOUS WASTE: NO (X) YES () RCRA #: (N/A)

U.S. CERCLA: NO (X) YES () RQ ()

CALIFORNIA PROPOSITION 65: LISTED () NOT LISTED (X)

SECTION 16 – OTHER INFORMATION

REVISION DATE: JANUARY 12, 2017 PREPARED BY: EHSA COORDINATOR / UNITED MINERAL & CHEMICAL CORP.

ABBREVIATIONS / ACRONYMS: N/A=NOT APPLICABLE; LEL=LOWER EXPLOSION LIMIT; UEL=UPPER EXPLOSION LIMIT; PEL=PERMISSIBLE EXPOSURE LIMIT; TLV=THRESHOLD LIMIT VALUE; TWA=TIME WEIGHTED AVERAGE OVER 8 HOUR WORKDAY; LD₅₀ OR LC₅₀=LETHAL DOSE OR LETHAL CONCENTRATION THAT KILLS 50% OF DOSED GROUP; g=GRAM; kg=KILOGRAM

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL HYGIENE, HANDLE WITH DUE CARE AND AVOID ANY UNNECESSARY CONTACT WITH THIS PRODUCT. USE RECOMMENDED PERSONAL PROTECTION WHEN HANDLING (SEE SECTION 8).

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS PRODUCT SPECIFICATION. THE INFORMATION IS BELIEVED TO BE TRUE AND ACCURATE. NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARD CONNECTED WITH USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. UNITED MINERAL & CHEMICAL CORPORATION AND ITS SUPPLIERS ASSUME NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

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