

UOP LLC -- MOLSIV ADSORBENTS 4A-50 1/16 -- 6850-01-163-2954

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Product Identification
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Product ID:MOLSIV ADSORBENTS 4A-50 1/16

MSDS Date:12/01/1999

FSC:6850

NIIN:01-163-2954

Status Code:A

MSDS Number: CKVSV

=== Responsible Party ===

Company Name:UOP LLC

Address:25 E. ALGONQUIN ROAD

City:DES PLAINES

State:IL

ZIP:60017-5017

Country:US

Info Phone Num:847-391-2189

Emergency Phone Num:(800)424

-9300

Chemtrec Ind/Phone:(800)424-9300

CAGE:TO600

=== Contractor Identification ===

Company Name:ADCOA-ADSORBENTS AND DESICCANTS CORP OF AMERICA

Address:17000 S VERMONT AVENUE

Box:City:GARDENA

State:CA

ZIP:90247-5832

Country:US

Phone:310-532-6086

CAGE:61134

Company Name:SUD-CHEMIE INC/SUB CHEMIE PERFORMANCE PACKAGING DIV

Address:926 SOUTH 8TH ST (FORMALLY HUMIDIAL)

Box:610

City:COLTON

State:CA

ZIP:92324-0610

Country:US

Phone:909-825-1793

Contract Num:SP0450-01-M-D216

CAGE:00334

Company Name:UOP

LLC
Address:25 E ALGONQUIN RD
Box:City:DES PLAINES
State:IL
ZIP:60017-5017
Country:US
Phone:847-391-3189 FAX: 847-391-2953
CAGE:02QC3

Company Name:UOP LLC
Address:25 E. ALGONQUIN ROAD
Box:City:DES PLAINES
State:IL
ZIP:60017-5017
Country:US
Phone:847-391-3189
CAGE:TO600

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Composition/Information on Ingredients
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Ingred Name:SILICON OXIDE (SIO2)
CAS:7631-86-9
< Wt:50.
OSHA PEL:5 MG/M3 (R. DUST)
ACGIH TLV:3 MG/M3 (R. DUST)

Ingred Name:ALUMINUM OXIDE (NON-FIBROUS)
CA
S:1344-28-1
RTECS #:BD1200000
< Wt:30.
OSHA PEL:15 MG/M3
ACGIH TLV:10 MG/M3

Ingred Name:SODIUM OXIDE
CAS:1313-59-3
< Wt:30.

Ingred Name:MAGNESIUM OXIDE
CAS:1309-48-4
RTECS #:OM3850000
< Wt:5.
OSHA PEL:15 MG/M3
ACGIH TLV:10 MG/M3

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Hazards Identification
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LD50 LC50 Mixture:LD50/ORAL/RAT: >32,000 MG/KG
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Health Hazards Acute and Chronic:TARGET ORGAN: PROLONGED OR REPEATED
INHALATION M

AY CAUSE LUNG INJURY. PRIMARY ROUTES OF EXPOSURE:

CONTACT WITH SKIN AND EYES. EXPOSURE MAY ALSO OCCUR VIA INHALATION OR INGESTION IF PRODUCT DUST IS GENERATED. SKIN: MAY CAUSE SKIN IRRITATION. THE PRODUCT GETS HOT AS IT FIRST ADSORBS WATER. EYE: DUST AND/OR PRODUCT MAY CAUSE EYE DISCOMFORT AND/OR IRRITATION SEEN AS TEARING AND REDDENING. INGESTION: THE PRODUCT GETS HOT AS IT FIRST ADSORBS WATER. BURNS TO MOIST BODY TISSUES CAN RESULT IF CONTACT IS PROLONGED. INHALATION:

EXPOSURE TO DUST PARTICLES

GENERATED FROM THIS MATERIAL MAY CAUSE IRRITATION OF THE RESPIRATORY TRACT.

Explanation of Carcinogenicity:IARC: SILICON OXIDE

(SYNTHETIC)-UNCLASSIFIABLE AS TO CARCINOGENICITY IN HUMANS (GROUP 3). NTP: NEITHER THE PRODUCT NOT THE COMPONETS ARE CLASSIFIED.

OSHA: NEITHER THE PRODUCT NOT THE COMPONETS ARE CLASSIFIED OR REGULATED. ACGIH: ALUMINUM OXIDE: NOT CLASSIFIABLE AS A HUMAN CARCINOGEN (A4).

Effects of Overexposure:SKIN: IRRITATION.

EYES: DISCOMFORT, IRRITATION,

TEARING, REDDENING. INGESTION: BURNS TO MOIST BODY TISSUE.

INHALATION: IRRITATION OF RESPIRATORY TRACT.

Medical Cond Aggravated by Exposure:NO DATA PROVIDED BY MANUFACTURER

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===== First Aid Measures =====

First Aid:EYE: RINSE IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. IF EYE IRRITATION PERSISTS, CONSULT A PHYSICIAN. SKIN: WASH OFF WITH SOAP AND PLENTY OF WATER. IF SKIN IRRITATION PERSISTS, CA

LL A PHYSICIAN. INHALATION: REMOVE THE VICTIM INTO

FRESH AIR. IF SYMPTOMS PERSIST, CALL A PHYSICIAN. INGESTION:

IMMEDIATELY GIVE LARGE VOLUME OF WATER TO DRINK. IF SYMPTOMS

PERSIST, CALL A PHYSICIAN. NOTE TO PHYSICIAN: THIS PRODUCT IS A

DESICCANT AND GENERATES HEAT AS IT ADSORBS WATER. THE USED PRODUCT

CAN CONTAIN MATERIAL OF A HAZARDOUS NATURE. IDENTIFY THAT MATERIAL

AND TREAT SYMPTOMATICALLY.

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===== Fire Fighting Measures =====

Flash

Point:N.A.

Autoignition Temp:Autoignition Temp Text:N.A.

Lower Limits:N.A.

Upper Limits:N.A.

Extinguishing Media:NON-COMBUSTIBLE. USE EXTINGUISHING MEDIA FOR SURROUNDING FIRE.

Fire Fighting Procedures:STANDARD PROCEDURE FOR CHEMICAL FIRES. IN THE CASE OF RESPIRABLE DUST AND/OR FUMES, USE SELF CONTAINED BREATHING APPARATUS AND DUST IMPERVIOUS PROTECTIVE SUIT.

Unusual Fire/Explosion Hazard:THE PRODUCT ITSELF DOES NOT BURN. THE USED PRODUCT CAN RETAIN MATERIAL OF A HAZARDOUS NATURE . IDENTIFY THAT MATERIAL AND INFORM THE FIRE FIGHTERS.

===== Accidental Release Measures =====

Spill Release Procedures:SWEEP, SHOVEL OR CACUUM SPILLED PRODUCT INTO APPROPRIATE CONTAINERS (DO NOT USE A VACUUM IF MATERIAL HAS CONTACTED A HYDROCARBON MATERIAL). PICK-UP AND ARRANGE DISPOSAL WITHOUT CREATING DUST. NEVER US E SPILLED PRODUCT. SPILLED PRODUCT SHOULD BE DISPOSED IN ACCORDANCE WITH ALL APPLICABLE GOVERNMENT REGULATIONS.

Neutralizing

Agent:NO DATA PROVIDED BY MANUFACTURER

===== Handling and Storage =====

Handling and Storage Precautions:HANDLING: HANDLE AND OPEN CONTAINER WITH CARE. AVOID FORMATION OF RESPIRABLE PARTICLES. AVOID CONTACT WITH SKIN AND EYES. TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGES. STORE IN ORIGINAL CONTA INER. KEEP IN A DRY PLACE.

Other Precautions:A COPY OF UOP'S BOOKLET "PRECAUTIONS AND SAFE PRACTICES FOR HANDLING MOLECULAR SIEVES IN PROCESS UNITS", M-100C CAN BE OBTAINED FROM YOUR UOP REPRESENTATIVE AT NO COST.

===== Exposure Controls/Personal Protection =====

Respiratory Protection:IN CASE OF INSUFFICIENT VENTILATION WEAR SUITABLE RESPIRATORY EQUIPMENT. BREATHING APPARTUS WITH FILTER: CLASSIFICATION N-100 OR IF OIL/LIQUID AEROSOLS ARE PRESENT P-100 (42 CFR 84)

Ventilation:ENSURE ADEQUATE VENTILATION, ESPECIALLY IN CONFINED AREAS

Protective Gloves:PROTECTIVE GLOVES

Eye Protection:SAFETY GLASSES.

AVOID CONTACT WITH EYES.

Other Protective Equipment:DUST IMPERVIOUS PROTECTIVE SUIT.

Work Hygienic Practices:HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICE.

Supplemental Safety and Health

NO DATA PROVIDED BY MANUFACTURER

===== Physical/Chemical Properties =====

HCC:N1

Boiling Pt:B.P. Text:N.A.

Melt/Freeze Pt:M.P/F.P Text:N.A.

Vapor Pres:N.A

Vapor Density:N.A.

Spec Gravity:NO DATA AVAILABLE

pH:8 TO 11 (AS)

Viscosity:N.A.

Solubility in Wate

r:NO DATA AVAILABLE

Appearance and Odor:TAN PELLETS, NO ODOR

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES

CHEMICALS WITH HIGH HEATS OF ADSORPTION SUCH AS OLEFINS, HYDROGEN CHLORIDE, ETC. WHEN FIRST WETTED PRODUCT CAN HEAT UP TO BOILING POINT OF WATER. FLOOD WITH WATER TO COOL.

Stability Condition to Avoid:NO DATA PROVIDED BY MANUFACTURER

Hazardous Decomposition Products:NO DECOMPOSITION IF USED AS DIRECTED. HYDROCARB

ONS AND OTHER MATERIALS THAT CONTACT THE PRODUCT DURING NORMAL USE CAN BE RETAINED ON THE PRODUCT MAY HAVE DECOMPOSITION PRODUCTS.

===== Toxicological Information =====

Toxicological Information:LD50/ORAL/RAT=>32,000 MG/KG.

LD50/DERMAL/RABBIT =>2,000 MG/KG. LC50/INHALATION/RAT=NO DATA AVAILABLE. CHRONIC TOXICITY: EC CARCINOGENIC:NOT LISTED. EC MUTAGENIC:NOT LISTED. EC TOXIC FOR REPRODUCTION:N OT LISTED. CARCINOGENICITY (ACGIH):A4 (ALUMINUM O

XIDE). IARC

CLASSIFICATION:GROUP 3 (SILICON OXIDE-SYNTHETIC). ROUTES OF EXPOSURE: EXPOSURE MAY OCCUR VIA INHALATION, CONTACT WITH SKIN & EYES. IRRITATION: SKIN (RABBIT):NOT CLASSIFIED AS A SKIN IRRITANT IN ANIMAL TESTING. EYE (RABBIT):NOT CLASSIFIED AS AN EYE IRRITANT IN ANIMAL TESTING. ADDITIONAL INFORMATION:THE TOXICOLOGICAL DATA HAVE BEEN TAKEN FROM PRODUCTS OF SIMILAR COMPOSITION.

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===== Ecological Information =====

Ecological:MOBI

LITY: NO DATA AVAILABLE. BIODEGRADATION: NO DATA AVAILABLE. BIOACCUMULATION: NO DATA AVAILABLE. AQUATIC TOXICITY: NO DATA AVAILABLE.FURTHER INFORMATION: NO INFORMATION AVAILABLE.

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===== Disposal Considerations =====

Waste Disposal Methods:THE PRODUCT (UNUSED) IS NOT LISTED IN THE EPA'S RCRA REGULATIONS & DOES NOT POSSESS CHARACTERISTICS OF A HAZARDOUS WASTE. MATERIALS OF A HAZARDOUS NATURE THAT CONTACT THE PRODUCT DURING NORMAL USE MAY BE RETAINED BY THE PRODUCT. THE USER MUST IDENTIFY THE HAZARDS OF THE RETAINED MATERIAL TO ASSESS WASTE DISPOSAL OPTIONS.

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===== MSDS Transport Information =====

Transport Information:PROPER SHIPPING NAME: NOT APPLICABLE. UN NO: NOT APPLICABLE. US DOT SHIPPING NAME: NOT REGULATED. IMO: NOT REGULATED. ICAO/IATA: NOT REGULATED.. FURTHER INFORMATION: NOT CLASSIFIED AS HAZARDOUS OR DANGEROUS IN THE MEANING OF TRANSPORT REGULATIONS.

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===== Regulatory Information =====

SARA Title III Information:SARA TITLE III, SECTION 302 (EXTREMELY HAZARDOUS SUBSTANCES: THE FOLLOWING COMPONENT(S) OF THIS PRODUCT IS/ARE SUBJECT TO THE EMERGENCY PLANNING PROVISIONS OF 40 CFR 355 WHEN THERE ARE AMOUNTS EQUAL TO OR GREATER THAN THE THRESHOLD PLANNING QUANTITY (TPQ): NONE. SECTION 313 (TOXIC CHEMICALS): THE FOLLOWING COMPONENT(S) HAVE BEEN SPECIFIED AS TOXIC CHEMICALS UNDER SARA SECTION 313 AND MAY BE

UBJECT TO THE TOXIC RELEASE INVENTORY

(TR) REPORTING REQUIREMENTS UN 40 CFR 372: NONE.

Federal Regulatory Information:TOXIC SUBSTANCES CONTROL ACT (TSCA): ALL INGREDIENTS OF THIS MIXTURE ARE REGISTERED IN THE TSCA CHEMICAL SUBSTANCE INVENTORY. CERCLA: THE FOLLOWING (COMPONENTS)

State Regulatory Information:CALIFORNIA PROPOSITION 65: NONE.

MASSACHUSETTS RIGHT-TO-KNOW: ALUMINUM OXIDE. NEW JERSEY RIGHT-TO-KNOW: SILICA, AMORPHOUS; ALUMINUM OXIDE. PENNSYLVANIA RIGHT-TO-KNOW:

SILICA; ALUMINUM OXIDE; MAGNESIUM OXIDE. NOTE:

OTHER US STATE REGULATIONS MAY EXIST, CHECK YOU LOCAL SOURCES IF AVAILABLE OR CONTACT THE UOP PRODUCT STEWARDSHIP MANAGER.

===== Other Information =====

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