

UOP MOLECULAR SIEVE DIVISION -- MOLECULAR SIEVE TYPE 5A -- 6850-00-926-9155

===== Product Identification =====

Product ID:MOLECULAR SIEVE TYPE 5A

MSDS Date:02/01/1997

FSC:6850

NIIN:00-926-9155

Status Code:A

MSDS Number: CJTTZ

=== Responsible Party ===

Company Name:UOP MOLECULAR SIEVE DIVISION

Address:25 EAST ALGONQUIN ROAD

Box:5017

City:DES PLAINES

State:IL

ZIP:60017-5017

Country:US

Info Phone Num

:847-391-3189

Emergency Phone Num:847-391-2123

Resp. Party Other MSDS Num.:MSDS REVISION NUMBER 7

Chemtrec Ind/Phone:(800)424-9300

CAGE:LO415

=== Contractor Identification ===

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:SP0450-00-M-D130

CAGE:00334

Company Name:UOP MOLECULAR SIEVE DIVISION

Address:25 EAST ALGONQUIN ROAD

Box:5017

City:DES PLAINES

State:IL  
ZIP:60017-5017  
Country:US  
Phone:847-391-3189  
CAGE:LO415

===== Composition/Information on Ingredients =====

Ingred Name:SILICON OXIDE (SYNTHETIC)  
CAS:7631-86-9  
&lt; Wt:65.  
Other REC Limits:NOT PROVIDED.  
OSHA PEL:15 MG/M3 (TDUST)  
OSHA STEL:5 MG/M3 RESP.  
ACGIH TLV:10 MG/M3 (TDUST)  
ACGIH STEL:5 MG/M3 RESP.

Ingred Name:ALUMINUM OXIDE (NON-FIBROUS)  
CAS:1344-28-1  
RTECS #:BD1200000  
&lt; Wt:40.  
Other REC Limits:NOT PROVIDED.  
OSHA PEL:15 MG/M3 (TDUST)  
OSHA STEL:5 MG/M3 RES  
P.  
ACGIH TLV:10 MG/M3

Ingred Name:SODIUM OXIDE  
CAS:1313-59-3  
&lt; Wt:20.  
Other REC Limits:NOT PROVIDED.

Ingred Name:CALCIUM OXIDE  
CAS:1305-78-8  
RTECS #:EW3100000  
&lt; Wt:20.  
Other REC Limits:NOT PROVIDED.  
OSHA PEL:5 MG/M3  
ACGIH TLV:2 MG/M3

===== Hazards Identification =====

LD50 LC50 Mixture:NOT AVAILABLE  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:POTENTIAL HE

## ALTH EFFECTS: SKIN

CONTACT:THE PRODUCT DUST MAY DRY THE SKIN. THIS MATERIAL BECOMES HOT WHEN IT FIRST COMES INTO CONTACT WITH MOISTURE AND COULD CAUSE THERMAL BURNS. EYE CONTACT: DUST AND/ OR PRODUCT MAY CAUSE EYE DISCOMFORT AND/OR IRRITATION SEEN AS TEARING AND REDDENING.

INGESTION:THE PRODUCT GETS HOT AS IT ADSORBES WATER. BURNS TO MOIST BODY TISSUE CAN RESULT IF CONTACT IS PROLONGED. INHILATION: INHILATION OF PRODUCT AND/OR DUST MAY CAUSE IRRITATION TO THE RE

SPIRATORY TRACT. IRRITATION MAY BE ACCOMPANIED BY COUGHING AND CHEST DISCOMFORT.

Explanation of Carcinogenicity:NOT PROVIDED.

Effects of Overexposure:SKIN CONTACT:THE PRODUCT DUST MAY DRY THE SKIN.

THIS MATERIAL BECOMES HOT WHEN IT FIRST COMES INTO CONTACT WITH MOISTURE AND COULD CAUSE THERMAL BURNS. EYE CONTACT: DUST AND/OR PRODUCT MAY CAUSE EYE D ISCOMFORT AND/OR IRRITATION SEEN AS TEARING AND REDDENING. INGESTION:THE PRODUCT GETS HOT AS IT ADSORBES WATER. BURNS TO MOIS

T BODY TISSUE CAN RESULT IF CONTACT IS PROLONGED.

INHILATION: INHILATION O F PRODUCT AND/OR DUST MAY CAUSE IRRITATION TO THE RESPIRATORY TRACT. IRRITATION MAY BE ACCOMPANIED BY COUGHING AND CHEST DISCOMFORT.

Medical Cond Aggravated by Exposure:NOT PROVIDED.

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

First Aid:SKIN CONTACT: WASH AFFECTED AREA WITH SOAP AND WATER. EYE CONTACT: FLUSH WITH WATER FOR AT LEAST 15 MINUTES. INGESTION: DRINK AT LEAST 2 GLA

SSSES OF WATER. OBTAIN MEDICAL ATTENTION. INHILATION:

REMOVE AFFECTED PERSON TO FRESH AIR. IF RESPIRATORY PROBLEMS DEVELOP, OBTAIN MEDICAL ATTENTION. NOTE TO PHYSICIAN:THIS PRODUCT IS A DESICCANT AND GENERATES HEAT AS IT ADSORBES WATER. THE USED PRODUCT CAN CON TAIN MATERIAL OF A HAZARDOUS NATURE. IDENTIFY THAT MATERIAL AND TREAT SYMPTOMATICALLY.

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

Flash Point:NON COMBUSTIBLE

Extinguishing Media:UNUSED MATER

IAL WILL NOT BURN. USE MEDIA  
APPROPRIATE FOR SURROUNDING FIRE.

Fire Fighting Procedures:NOT PROVIDED.

Unusual Fire/Explosion Hazard:USED MATERIAL MAY CONTAIN MATERIALS OF A  
HAZARDOUS NATURE. THE USER OF THIS PRODUCT MUST IDENTIFY THE  
HAZARDS OF THE RETAINED MATERIAL AND INFORM THE FIRE FIGHTERS OF  
THESE HAZARDS.

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

Spill Release Procedures:ISOLATE THE AFFECTED AREAS. CONFINE ENTRY INTO  
THE AFFECTED AREA TO THO  
SE PERSONS PROPERLY PROTECTED. SPECIAL  
ATTENTION SHOULD BE GIVEN TO EYE, SKIN AND RESPIRATORY PROTECTION  
BECAUSE RECOVERY OF DRY PRODUCT IS EXPECTED TO GENERATE DUST.  
SWEEP, SHOVEL OR VACUUM SPILLED PRODUCT INTO APPROPRIATE CONTAINERS  
(DO NOT USE A VACUUM IF MATERIAL HAS CONTACTED A HYDROCARBON  
MATERIAL).

Neutralizing Agent:NOT APPLICABLE.

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

Handling and Storage Precautions:STORE IN TIGHTLY CLOSED, PROPERLY  
LABELED CONTAINERS. A COPY OF UOP'S BOOKLET, "PRECAUTIONS AND SAFE  
PRACTICES FOR HANDLING MOLECULAR SIEVES IN PROCESS UNITS," M-1001,  
CAN BE OBTAINED FROM YOUR UOP RE PRESENTATIVE AT NO COST.

Other Precautions:NOT PROVIDED.

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

Respiratory Protection:WHERE NATURAL VENTILATION IS INADEQUATE, USE  
MECHANICAL VENTILATION, OTHER ENGINEERING CONTROLS, OR A TOXIC DUST  
RESPIRATOR(IN USA-NIOSH/MSHA APPROVED) TO PREVENT  
INHILATION OF  
PRODUCT DUST.

Ventilation:NATURAL

Protective Gloves:AS NECESSARY TO PREVENT PROLONGED SKIN CONTACT

Eye Protection:SAFETY GLASSES OR GOGGLES TO PREVENT EYE CONTACT.

Other Protective Equipment:WORK UNIFORM

Work Hygienic Practices:NOT PROVIDED.

Supplemental Safety and Health

NONE

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

HCC:N1

Boiling Pt:B.P. Text:NOT APPLICABLE.

Melt/Freeze Pt:M.P/F.P Text:NOT APPLICABLE.

Decomp Temp:Decomp Text:NOT PROVIDED.

Vapor P

res:NOT APPLICABLE.  
Vapor Density:NOT APPLIC  
Spec Gravity:1.1=PIECE;2.1=CRYSTAL  
pH:8-11 SLURRY  
Viscosity:NOT APPLICABLE.  
Evaporation Rate & Reference:NOT APPLICABLE.  
Solubility in Water:NOT APPLICABLE.  
Appearance and Odor:TAN PELLETS OR BEADS, WHITE POWDER OR CAKE  
Percent Volatiles by Volume:NOT APPLICAB  
Corrosion Rate:NOT PROVIDED.

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

Stability Indicator/Materials to Avoid:YES  
SUDDEN CONTACT WITH HIGH CONCENTRATIONS OF CHEMI  
CALS HAVING HIGH HEATS  
OF ADSORPTION SUCH AS OLEFINS, HCL, ETC.  
Stability Condition to Avoid:THE ADDITION OF MOSITURE WITHOUT FLOODING  
CAN CAUSE RISE IN TEMPERATURE FROM HEAT ADSORPTION. CONTACT WITH  
SKIN MAY RESULT IN BURNS.  
Hazardous Decomposition Products:DECOMPOSITION PRODUCTS WILL COME FROM  
RETAINED PRODUCTS. PRODUCT ITSELF DOES NOT READILY DECOMPOSE UNLESS  
SUBJECT TO EXTREME TEMPERATURE. DECOMPOSITION WILL INCLUDE OXIDES  
SHOWN IN INGREDIENTS SECTION.

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

Toxicological Information:NOT PROVIDED.

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

Ecological:NOT PROVIDED.

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

Waste Disposal Methods:DISCARD ANY PRODUCT (INCLUDING ANY RETAINED  
MATERIALS OF USE), DISPOSABLE CONTAINER OR LINER IN AN  
ENVIRONMENTALLY ACCEPTABLE MANNER, IN FULL COMPLIANCE WITH ALL  
APPLICABLE GOVERNMENT REGULATIONS. THI S PR

PRODUCT IS NOT LISTED BY  
THE U.S. EPA'S RESOURCE CONSERVATION AND RECOVERY ACT (RCRA).

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

Transport Information:NOT REGULATED FOR TRANSPORTATION, PER MSDS.

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

SARA Title III Information:NONE  
Federal Regulatory Information:NOT PROVIDED.  
State Regulatory Information:NOT PROVIDED.

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