

IDENTITY: INDICATING DRIERITE  
DESCRIPTION: 1/16" TO 1/4" BLUE GRANULES

MANUFACTURER'S NAME: W. A. HAMMOND DRIERITE CO.  
ADDRESS: P.O. BOX 460, 138 DAYTON AVE., XENIA, OH 45385  
EMERGENCY PHONE NUMBER: (513) 376-2927  
INFORMATION PHONE NUMBER: (513) 376-2927

CHEMICAL IDENTITY	%	OSHA PEL	ACGIH TLV	UNITS	C.A.S. #
CALCIUM SULFATE	97	15	10	MG/M3	7778-18-9
COBALT CHLORIDE	3	0.05*	0.05*	MG/M3	7646-79-9
*(AS COBALT METAL)					

HEALTH	FLAMMABILITY	REACTIVITY	PROTECTIVE EQUIPMENT
1	0	1	E

SPECIFIC GRAVITY (H2O=1): 1.87  
SOLUBILITY IN WATER: 0.25 GRAMS PER LITER  
MELTING POINT: 1450 C DECOMPOSES  
APPEARANCE: BLUE GRANULES; NO ODOR

FLASH POINT: NONE  
EXTINGUISHING MEDIA: NOT COMBUSTIBLE  
SPECIAL FIREFIGHTING PROCEDURES: NONE  
UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE

STABILITY: STABLE  
INCOMPATIBILITY (MATERIALS TO AVOID): STRONG ACIDS  
HAZARDOUS DECOMPOSITION BYPRODUCTS: CL2 AT 318 DEGREES; SO3 @ 1450 C  
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

EYES: PARTICLES MAY CAUSE IRRITATION.  
SKIN: THIS MATERIAL IS NOT TOXIC. MAY DRY OR IRRITATE SKIN  
INHALATION: MAY CAUSE AN IRRITATION OF RESPIRATORY ORGANS OF SENSITIVE PERSONS  
RESULTING IN THE OBSTRUCTION OF AIRWAYS WITH SHORTNESS OF BREATH.  
INGESTION: MAY CAUSE VOMITING, DIARRHEA AND SENSATION OF WARMTH  
SIGNS AND SYMPTOMS OF OVER EXPOSURE: EYE, NOSE, THROAT, OR RESPIRATORY  
IRRITATION

CARCINOGENICITY OF INGREDIENTS:			
MATERIAL	IARC	NTP	OSHA
CALCIUM SULFATE	NOT LISTED	NOT LISTED	NOT LISTED
COBALT CHLORIDE	YES*	NO	NO

\*(COBALT & COBALT COMPOUNDS ARE CLASSIFIED AS GROUP 2B)

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:  
PRE-EXISTING UPPER RESPIRATORY AND LUNG DISEASE SUCH AS, BUT NOT LIMITED TO,  
BRONCHITIS, EMPHYSEMA & ASTHMA

EMERGENCY AND FIRST AID PROCEDURES:  
EYES: FLUSH WITH WATER. IF IRRITATION CONTINUES OBTAIN MEDICAL ATTENTION.  
DUST: INHALATION: REMOVE TO FRESH AIR  
SKIN: WASH WITH WATER

INGESTION: IF PATIENT IS CONSCIOUS, INDUCE VOMITING. OBTAIN MEDICAL ATTENTION.

#### SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:  
SWEEP OR VACUUM MATERIAL INTO APPROPRIATE WASTE CONTAINER FOR DISPOSAL. AVOID DUSTING CONDITIONS.

WASTE DISPOSAL METHOD: THIS MATERIAL MUST BE DISPOSED OF IN ACCORDANCE WITH PROCEDURES ACCEPTABLE UNDER FEDERAL, STATE AND LOCAL REGULATIONS.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:  
KEEP CONTAINER CLOSED  
STORE IN A COOL DRY PLACE  
AVOID GENERATING DUST

#### SECTION VIII CONTROL MEASURES

RESPIRATORY PROTECTION: MASK NIOSH/OSHA APPROVED FOR DUST  
VENTILATION: TO MEET TLV REQUIREMENTS  
EYES: SAFETY GLASSES OR GOGGLES  
OTHER PROTECTIVE EQUIPMENT: GLOVES OR PROTECTIVE CLOTHING ARE NOT USUALLY NECESSARY BUT MAY BE DESIRABLE IN SPECIFIC WORK SITUATIONS.

#### SECTION IX REFERENCES

U.S. DEPARTMENT OF LABOR - OSHA FORM APPROVED OMB NO. 1218 - 0072. OSHA HAZARD COMMUNICATION STANDARD - 29 CFR 1910.1200 U.S. GYPSUM CO. & SOGEM-AFROMET INC.

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ALTHOUGH THE INFORMATION AND RECOMMENDATION SET FORTH HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE CORRECT AS OF THE DATE HEREOF, THE W.A. HAMMOND DRIERITE CO. MAKES NO REPRESENTATION AS TO THE COMPLETENESS OR ACCURACY THEREOF. INFORMATION IS SUPPLIED UPON THE CONDITION THAT THE PERSON RECEIVING SAME WILL MAKE THEIR OWN DETERMINATION AS TO ITS SUITABILITY FOR THEIR PURPOSE PRIOR TO USE. IN NO EVENT WILL THE W.A. HAMMOND DRIERITE CO. BE RESPONSIBLE FOR DAMAGES OF ANY NATURE WHATSOEVER RESULTING FROM THE USE OF OR RELIANCE UPON INFORMATION HEREIN SUPPLIED. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OF OR ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.

PAGE 3 (LAST PAGE)  
W.A. HAMMOND DRIERITE COMPANY  
MANUFACTURERS  
DRIERITE, "THE VERSATILE DESICCANT"  
CONSULTING AND ENGINEERING SERVICE  
DRYING SOLIDS, LIQUIDS, GASES

#### MATERIAL SAFETY DATA SHEET

IDENTITY: INDICATING DRIERITE  
CONTENTS: CALCIUM SULFATE 97%, COBALT CHLORIDE 3%

#### SECTION I

MANUFACTURER'S NAME: W.A. HAMMOND DRIERITE COMPANY  
ADDRESS: 138 DAYTON AVENUE, P.O. BOX 460, XENIA, OHIO 45385  
EMERGENCY TELEPHONE: CHEMTREC 1-800-424-9300

TELEPHONE NUMBER FOR INFORMATION: 1-513-376-2927  
DATE PREPARED: 9/5/89

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

HAZARDOUS COMPONENTS (CHEMICAL IDENTITY)	COMMON NAME	OSHA PEL (MG/M3)	ACGIH TLV (MG/M3)	C.A.S. NO.	%
COBALTOUS CHLORIDE (AS COBALT)	COBALT CHLORIDE	0.1	0.05*	7646-79-9	3

\*RECOMMENDED

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT:	N/A	SPECIFIC GRAVITY (H2O=1):	1.87
VAPOR PRESSURE (MMHG):	N/A	MELTING POINT:	N/A
VAPOR DENSITY (AIR=1):	N/A	EVAPORATION RATE:	
SOLUBILITY IN WATER:	0.3G/100ML	(BUTYL ACETATE=1)	N/A
APPEARANCE AND ODOR:	BLUE GRANULES, NO ODOR		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT(METHOD):	N/A	FLAMMABLE LIMITS:	LEL	N/A	UEL	N/A
EXTINGUISHING MEDIA:	WATER					
SPECIAL FIREFIGHTING PROCEDURES:	N/A					
UNUSUAL FIRE AND EXPLOSION HAZARDS:	N/A					

SECTION V - REACTIVITY DATA

STABILITY:	STABLE	X	UNSTABLE	CONDITIONS TO AVOID:	N/A
INCOMPATIBILITY (MATERIALS TO AVOID):	STRONG OXIDIZING AGENTS				
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:	THERMAL DECOMPOSITION MAY PRODUCE CHLORINE.				
HAZARDOUS POLYMERIZATION:	MAY OCCUR:		WILL NOT OCCUR: X		
CONDITIONS TO AVOID:	N/A				

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SECTION VI - HEALTH HAZARD DATA

ROUTE(S) OF ENTRY:	INHALATION	X	SKIN:	INGESTION:
CARCINOGENICITY:	NTP:	NO	IARC MONOGRAPHS:	NO
	OSHA REGULATED:	NO		

HEALTH HAZARDS (ACUTE AND CHRONIC)/SIGNS AND SYMPTOMS OF EXPOSURE:  
THIS PRODUCT CONTAINS 3% COBALT CHLORIDE WHICH CAUSES EYE IRRITATION AND MAY CAUSE SKIN AND UPPER RESPIRATORY TRACT IRRITATION. OVEREXPOSURE TO COBALT COMPOUNDS MAY CAUSE NOSE AND THROAT IRRITATION AND AN ALLERGIC SKIN RASH. THEY ARE MILDLY IRRITATING TO THE EYES AND IF INGESTED, MAY CAUSE VOMITING, DIARRHEA AND A SENSATION OF HOTNESS. EXCESSIVE INHALATION AND/OR INGESTION COBALT SALTS MAY AFFECT THE KIDNEYS, LUNGS, AND THYROID.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:  
RESPIRATORY SYSTEM CONDITIONS AND SKIN DISEASES.

EMERGENCY AND FIRST AID PROCEDURES:  
IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION, PREFERABLY MOUTH-TO-MOUTH. IF BREATHING IS DIFFICULT, GIVE OXYGEN. CALL A PHYSICIAN. IF SWALLOWED, GIVE TWO GLASSES OF WATER AND INDUCE VOMITING IMMEDIATELY. CALL A PHYSICIAN. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. CALL A PHYSICIAN.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:  
VENTILATE AREA OF SPILL. COLLECT MATERIAL INTO APPROPRIATE CONTAINERS FOR REUSE OR DISPOSAL. MATERIAL MAY ALSO BE FLUSHED WITH WATER TO A WASTEWATER TREATMENT SYSTEM.

WASTE DISPOSAL METHOD:

DISPOSE IN CLOSED CONTAINERS, AT AN APPROVED LANDFILL, IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. MATERIAL MAY ALSO BE FLUSHED WITH WATER TO A WASTEWATER TREATMENT SYSTEM.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:  
KEEP IN CLOSED CONTAINERS. AVOID GENERATING DUST.

OTHER PRECAUTIONS:

AVOID CONTACT WITH EYES, SKIN AND CLOTHING. AVOID BREATHING DUST. WASH THOROUGHLY AFTER HANDLING.

SECTION VIII - CONTROL MEASURES

RESPIRATORY PROTECTION: NIOSH/OSHA APPROVED FOR DUST.

VENTILATION: SUFFICIENT TO MAINTAIN OSHA PEL.

PROTECTIVE GLOVES: IMPERVIOUS

EYE PROTECTION: SIDE SHIELD SAFETY GLASSES OR GOGGLES.

OTHER PROTECTIVE CLOTHING AND EQUIPMENT: SAFETY SHOWERS AND EYEWASHES.

WORK/HYGIENIC PRACTICES: GOOD HOUSEKEEPING PROCEDURES SHOULD BE FOLLOWED TO MINIMIZE DUST.

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SECTION IX - REFERENCES

SHEPHERD CHEMICAL COMPANY - MSDS FOR COBALT CHLORIDE

HALL CHEMICAL COMPANY - MSDS FOR COBALT CHLORIDE

U.S. DEPARTMENT OF LABOR - OSHA FORM APPROVED OMB NO. 1218-0072

OSHA HAZARD COMMUNICATION STANDARD - 29 CFR 1910.1200

ALTHOUGH THE INFORMATION AND RECOMMENDATIONS SET FORTH HEREIN (HEREINAFTER "INFORMATION") ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE CORRECT AS OF THE DATE HEREOF, THE W.A. HAMMOND DRIERITE COMPANY MAKES NO REPRESENTATIONS AS TO THE COMPLETENESS OR ACCURACY THEREOF. INFORMATION IS SUPPLIED UPON THE CONDITION THAT THE PERSONS RECEIVING SAME WILL MAKE THEIR OWN DETERMINATION AS TO ITS SUITABILITY FOR THEIR PURPOSES PRIOR TO USE. IN NO EVENT WILL THE W.A. HAMMOND DRIERITE COMPANY BE RESPONSIBLE FOR DAMAGES OF ANY NATURE WHATSOEVER RESULTING FROM THE USE OF OR RELIANCE UPON INFORMATION. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.

PAGE 3 (LAST PAGE)  
MATERIAL SAFETY DATA SHEET

AN EXPLANATION OF THE TERMS USED HEREIN MAY BE FOUND IN OSHA 29 CFR 1910.1200, AVAILABLE FROM OSHA REGIONAL OR AREA OFFICES. (ESSENTIALLY SIMILAR TO U.S. DEPARTMENT OF LABOR FORM OSHA-20 AND GENERALLY ACCEPTED IN CANADA FOR INFORMATION PURPOSES)

DO NOT DUPLICATE THIS FORM. REQUEST AN ORIGINAL.

I. PRODUCT IDENTIFICATION

PRODUCT MOLECULAR SIEVE TYPE 5A

CHEMICAL NAME	SODIUM ALUMINOSILICATE	SYNONYMS	ZEOLITE
FORMULA	CAO, NA2O, AL2O3, SIO2	CHEMICAL FAMILY	MOLECULAR SIEVE
		MOLECULAR WEIGHT	NOT APPLICABLE

TRADE NAME UNION CARBIDE (R) MOLECULAR SIEVE

II. HAZARDOUS INGREDIENTS

A COMPLEX OF ELEMENTS AND COMPOUNDS COMPOSED OF MATERIAL SHOWN BELOW.

NOTE: IN THE TABLE BELOW, THE SYMBOL "<" MEANS "LESS THAN".

MATERIAL (CAS NO.)	WT (%)	1985-1986 ACGIH TLV-TWA (OSHA-PEL)
SODIUM OXIDE (1313-59-3)	<15	NONE ESTABLISHED (NONE ESTABLISHED)
CALCIUM OXIDE (1305-78-8)	<20	2 MG/M3 (5 MG/M3)
SILICON OXIDE (7631-86-9)	<50	10 MG/M3 TOTAL DUST (20 MPPCF) 5 MG/M3 RESPIRABLE DUST (NONE CURRENTLY ESTABLISHED)
ALUMINUM OXIDE (1344-28-1)	<40	NUISANCE PARTICULATE (NUISANCE DUST)  10 MG/M3 TOTAL DUST (15 MG/M3 TOTAL DUST) 5 MG/M3 RESPIRABLE DUST (5 MG/M3 RESPIRABLE FRACTION)

### III. PHYSICAL DATA

BOILING POINT, 760 MM.HG	NOT APPLICABLE	FREEZING POINT	NOT APPLICABLE
SPECIFIC GRAVITY (H2O=1)	1.1 (PIECE)	VAPOR PRESSURE	NOT APPLICABLE
	2.0 (CRYSTAL)	AT 20 C	
VAPOR DENSITY (AIR=1)	NOT APPLICABLE	SOLUBILITY IN WATER	NOT APPLICABLE
		% BY WT.	
PERCENT VOLATILES	NOT APPLICABLE	EVAPORATION RATE	NOT APPLICABLE
BY VOLUME		(BUTYL ACETATE=1)	
APPEARANCE AND ODOR	PRODUCT IS IN THE FORM OF BEADS, PELLETS, MESH, CAKE OR POWDER; ODORLESS.		

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### EMERGENCY PHONE NUMBER

IN CASE OF EMERGENCIES INVOLVING THIS MATERIAL, FURTHER INFORMATION IS  
AVAILABLE AT ALL TIMES:  
IN THE USA 1-800-UCC-HELP (1-800-822-4357)  
IN CANADA 514-645-5311

FOR ROUTINE INFORMATION CONTACT YOUR LOCAL SUPPLIER

UNION CARBIDE REQUESTS THE USERS OF THIS PRODUCT TO STUDY THIS MATERIAL SAFETY DATA SHEET (MSDS) AND BECOME AWARE OF PRODUCT HAZARDS AND SAFETY INFORMATION. TO PROMOTE SAFE USE OF THIS PRODUCT A USER SHOULD (1) NOTIFY ITS EMPLOYEES, AGENTS AND CONTRACTORS OF THE INFORMATION ON THIS MSDS AND ANY PRODUCT HAZARDS AND SAFETY INFORMATION, (2) FURNISH THIS SAME INFORMATION TO EACH OF ITS CUSTOMERS FOR THE PRODUCT, AND (3) REQUEST SUCH CUSTOMERS TO NOTIFY THEIR EMPLOYEES AND CUSTOMERS FOR THE PRODUCT OF THE SAME PRODUCT HAZARDS AND SAFETY INFORMATION.

UNION CARBIDE CORPORATION MOLECULAR SIEVES DEPARTMENT  
UNION CARBIDE CANADA LIMITED MOLECULAR SIEVES DEPARTMENT

### IV. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: 5 MG/M3 (ACGIH 1985-86) FOR RESPIRABLE DUST.

EFFECTS OF SINGLE (ACUTE) OVEREXPOSURE:  
SWALLOWING - NO EVIDENCE OF ADVERSE EFFECTS FROM AVAILABLE INFORMATION.

SKIN ABSORPTION - NO EVIDENCE OF ADVERSE EFFECTS FROM AVAILABLE INFORMATION.

INHALATION - MAY CAUSE IRRITATION OF THE NOSE AND THROAT, ACCOMPANIED BY COUGH AND CHEST DISCOMFORT.

SKIN CONTACT - MAY CAUSE IRRITATION SEEN AS LOCAL REDNESS.

EYE CONTACT - MAY CAUSE IRRITATION SEEN AS EXCESS REDNESS OF THE CONJUNCTIVA.

EFFECTS OF REPEATED (CHRONIC) OVEREXPOSURE: PROLONGED INHALATION MAY CAUSE LUNG DAMAGE.

OTHER EFFECTS OF OVEREXPOSURE: NONE CURRENTLY KNOWN.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: BREATHING OF DUST MAY AGGRAVATE ASTHMA AND INFLAMMATORY OR FIBROTIC PULMONARY DISEASE.

EMERGENCY AND FIRST AID PROCEDURES:  
SWALLOWING - IF INGESTED IN LARGE QUANTITIES, THEN DRINK 2 GLASSES OF WATER.  
INDUCE VOMITING IF THE PATIENT IS CONSCIOUS.

SKIN CONTACT - WASH WITH SOAP AND WATER.

INHALATION - REMOVE TO FRESH AIR.

EYE CONTACT - FLUSH EYES WITH WATER FOR 15 MINUTES.

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NOTE TO PHYSICIAN: THIS PRODUCT IS A DESICCANT AND GENERATES HEAT AS IT ABSORBS WATER. THE USED PRODUCT CAN CONTAIN MATERIAL OF A HAZARDOUS NATURE. IDENTIFY THAT MATERIAL AND TREAT ACCORDINGLY.

#### V. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT DOES NOT BURN AUTOIGNITION NOT APPLICABLE  
(TEST METHOD) TEMPERATURE

FLAMMABLE LIMITS LOWER NOT APPLICABLE UPPER NOT APPLICABLE  
IN AIR, % BY VOLUME

EXTINGUISHING MEDIA: UNUSED MATERIAL WILL NOT BURN. USE MEDIA APPROPRIATE FOR SURROUNDING FIRE.

SPECIAL FIREFIGHTING PROCEDURES: DEPENDS ON THE USE OF THE MATERIAL. USED MATERIAL MAY CONTAIN PRODUCTS 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.

UNUSUAL FIRE AND EXPLOSION HAZARDS: IN THEIR FRESH UNUSED STATE, MOLECULAR SIEVES ARE NOT FLAMMABLE. WHEN EXPOSED TO WATER, HOWEVER, THEY CAN GET QUITE HOT. WHEN FIRST WETTED THEY CAN HEAT TO THE BOILING POINT OF WATER. FLOODING WILL REDUCE THE TEMPERATURE TO SAFE LIMITS.

#### VI. REACTIVITY DATA

STABILITY CONDITIONS TO AVOID: MOISTURE (WATER) CAN CAUSE  
UNSTABLE STABLE X RISE IN TEMPERATURE WHICH MAY RESULT IN BURN.

INCOMPATIBILITY (MATERIALS TO AVOID): SUDDEN CONTACT WITH HIGH CONCENTRATIONS OF CHEMICALS HAVING HIGH HEATS OF ABSORPTION SUCH AS OLEFINS, HCL, ETC.

HAZARDOUS DECOMPOSITION PRODUCTS: HYDROCARBONS AND OTHER MATERIALS THAT CONTACT THE MOLECULAR SIEVE DURING NORMAL USE CAN BE RETAINED ON THE SIEVE. IT IS REASONABLE TO EXPECT THAT DECOMPOSITION PRODUCTS WILL COME FROM THESE RETAINED MATERIALS OF USE. THE MOLECULAR SIEVE ITSELF DOES NOT READILY DECOMPOSE UNLESS SUBJECTED TO EXTREME TEMPERATURE OR CHEMICAL CONDITIONS. IF SUCH DECOMPOSITION DID OCCUR THE PRODUCT WOULD INCLUDE THE MIX OF OXIDES LISTED IN SECTION II.

HAZARDOUS POLYMERIZATION CONDITIONS TO AVOID: NONE CURRENTLY KNOWN.  
MAY OCCUR WILL NOT OCCUR X

#### VII. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: SWEEP THE SPILL AREA. COLLECT AND PLACE THE SPILLED MATERIAL IN A WASTE DISPOSAL CONTAINER. AVOID RAISING DUST.

WASTE DISPOSAL METHOD: DISCARD ANY PRODUCT (INCLUDING ANY RETAINED MATERIALS OF USE), DISPOSABLE CONTAINER OR LINER IN AN ENVIRONMENTALLY ACCEPTABLE MANNER, IN FULL COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

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VIII. SPECIAL PROTECTION INFORMATION

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RESPIRATORY PROTECTION (SPECIFY TYPE): WHERE THERE IS EXCESSIVE DUSTINESS,  
WEAR A RESPIRATOR SELECTED AS PER OSHA 29 CFR 1910.134 AND APPROVED BY  
NIOSH/MSHA.

VENTILATION

LOCAL EXHAUST - AS APPROPRIATE TO MINIMIZE DUST.  
MECHANICAL (GENERAL) - NOT APPLICABLE.  
SPECIAL - NOT APPLICABLE.  
OTHER - NOT APPLICABLE.

PROTECTIVE GLOVES: USE GLOVES IMPERMEABLE TO DUST WHERE PROLONGED HAND CONTACT  
IS POSSIBLE.

EYE PROTECTION: SAFETY GLASSES OR GOGGLES SELECTED AS PER OSHA 29 CFR  
1910.133.

OTHER PROTECTIVE EQUIPMENT: EYEWASH FOUNTAIN.

IX. SPECIAL PRECAUTIONS

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CAUTION: CAUSES EYE IRRITATION. BREATHING DUST MAY BE HARMFUL. MAY CAUSE  
SKIN IRRITATION. OPEN CONTAINER SLOWLY TO AVOID DUST. DO NOT GET IN EYES.  
AVOID BREATHING DUST AND PROLONGED CONTACT WITH SKIN. USE WITH ADEQUATE  
VENTILATION. KEEP CONTAINER CLOSED. WASH THOROUGHLY AFTER HANDLING. DO NOT  
PUT PRODUCT IN MOUTH NOR POUR LIQUID INTO PRODUCT, BECAUSE BURNS CAN OCCUR.

BEFORE USING YOU SHOULD KNOW THE HAZARDS OF THE PRODUCTS TO BE ABSORBED ON THE  
MOLECULAR SIEVE. THE PRODUCTS COULD BE FLAMMABLE OR TOXIC. YOU SHOULD KNOW  
AND FOLLOW ALL THE SAFETY PRECAUTIONS RELATED TO THE ABSORBED PRODUCTS.

OTHER HANDLING AND STORAGE CONDITIONS: PH RANGE IF IN AQUEOUS SLURRY 8-11.

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THE OPINIONS EXPRESSED HEREIN ARE THOSE OF QUALIFIED EXPERTS WITHIN UNION  
CARBIDE. WE BELIEVE THAT THE INFORMATION CONTAINED HEREIN IS CURRENT AS OF THE  
DATE OF THIS MATERIAL SAFETY DATA SHEET. SINCE THE USE OF THIS INFORMATION AND  
THESE OPINIONS AND THE CONDITIONS OF USE OF THE PRODUCT ARE NOT WITHIN THE  
CONTROLS OF UNION CARBIDE, IT IS THE USER'S OBLIGATION TO DETERMINE THE  
CONDITIONS OF SAFE USE OF THE PRODUCT.  
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UNION CARBIDE  
MOLECULAR SIEVES

GENERAL OFFICES

IN THE USA:  
UNION CARBIDE CORPORATION  
MOLECULAR SIEVES DEPT.  
39 OLD RIDGEBURY ROAD  
DANBURY, CT 06817-0001

IN CANADA:  
UNION CARBIDE CANADA LIMITED  
MOLECULAR SIEVES DEPT.  
123 EGLINTON AVENUE EAST  
TORONTO, ONTARIO M4P 1J3

OTHER OFFICES IN PRINCIPAL CITIES ALL OVER THE WORLD.