

EMERSON & CUMING SPECIALTY POLYMERS DIV. NATIONAL STARCH -- CATALYST 11 --  
5970-00-081-4333

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

Product ID:CATALYST 11  
MSDS Date:10/02/1997  
FSC:5970  
NIIN:00-081-4333  
Status Code:A  
Kit Part:Y  
MSDS Number: CKVWB  
=== Responsible Party ===  
Company Name:EMERSON & CUMING SPECIALTY POLYMERS DIV. NATIONAL STARCH  
Address:55 HAYDEN AVE.  
City:LEXINGTON  
State:MA  
ZIP:02173  
Count  
ry:US  
Info Phone Num:617-828-3300; 617-402-9100SAFETY  
Emergency Phone Num:(800)424-9300  
Resp. Party Other MSDS Num.:600308  
Preparer's Name:DAVID HAAS  
Chemtrec Ind/Phone:(800)424-9300  
CAGE:UO039

=== Contractor Identification ===

Company Name:EMERSON & CUMING SPECIALTY POLYMERS DIV. NATIONAL STARCH  
Address:55 HAYDEN AVE.  
Box:City:LEXINGTON  
State:MA  
ZIP:02173  
Country:US  
Phone:617-828-3300; 617-402-9100SAFETY  
Contract Num:SPO411-01-M-G585  
CAGE:UO039  
Company Name:MCKEOWN ROBERT CO. INC.  
Address:111 C  
HAMBERS BROOK RD.  
Box:City:SOMERVILLE  
State:NJ  
ZIP:08876  
Country:US  
Phone:908-218-9000  
Contract Num:SP0430-01-M-H114  
CAGE:7B953

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

Ingred Name:M-PHENYLENE DIAMINE  
Minumum % Wt:70.  
Maxumum % Wt:80.  
OSHA PEL:N/E  
ACGIH TLV:0.1 MG/M3

Ingred Name:N-METHYL PYRROLIDONE  
Minumum % Wt:20.  
Maxumum % Wt:30.

Y MANUFACTURER

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:EYES: SEVERLY IRRITATING TO EYES. SKIN CONTACT: CAUSES MODERATE SKIN IRRITATION. PROLONGED OR REPEATED EXPOSURE TO LIQUID MAY EXERT DEFATTING OR DRYING ACTION ON SKIN, RESULTING IN DERMATITIS. THIS PR ODUCT MAY CAUSE SKIN SENSITIZATION/ALLERGIC SKIN REACTIONS WHICH MAY BE SEVERE IN CERTAIN INDIVIDUALS. MAY BE ABSORBED THROUGH SKIN. INHALATION: MAY CAUSE RESPIRATORY IRRITA TION. MAY CAUSE SENSITIZAT ION RESPONSES IN SUSCEPTIBLE INDIVIDUALS; REACTIONS MAY BE SEVERE IN SOME CASES. SYMPTOMS MAY BE DELAYED. INGESTION: HARMFUL IF SWALLOWED. CHRONIC: (SEE TOXICOLOGICAL).

Explanation of Carcinogenicity:M-PHENYLENE DIAMINE HAS NOT DEMONSTRATED ANY CARCINOGENIC ACTIVITY.

Effects of Overexposure:EYES: BLURRED VISION, BURNING SENSATION , TEARING. SKIN: RASH, ITCHING, HIVES, SWELLING OF THE EXTREMITIES. MAY BE ABSORBED THROUGH SKIN. MAY CAUSE A TEMPORAR Y, ORANGE-BROWN STAINING OF THE SKIN; NO AD VERSE HEALTH EFFECTS ARE KNOWN TO BE RESULT FROM THIS STAINING. INHALATION: RESPIRATORY IRRITATION, NAUSEA , HEADACHES. INHALATION HAZARD AT ROOM TEMPERATURE IS UNLIKELY, DUE TO THE LOW VOLALITY OF TH IS PRODUCT. INGESTION: HARMFUL IF SWALLOWED.

Medical Cond Aggravated by Exposure:PERSONS WITH ASTHMA-TYPE CONDITIONS, CHRONIC BRONCHITIS, OTHER CHRONIC RESPIRATORY DISEASES OR RECURRENT SKIN ECZEMA OR SENSITIZATION SHOULD BE EX CLUDED FROM WORKING WITH PHENYLENE DIAMINES.

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

First Aid:EYE CONTACT: FLUSH EYES WITH WATER 15 MINUTES WHILE HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION. SKIN CONTACT: REMOVE AN CONTAMINATED CLOTHING AND FLUSH THE AFFECTED AREA OF THE SKIN THOROUGHLY WITH PLENTY OF WATER. FOLLOW BY WASHING WITH SOAP AND WATER. GET MEDICAL ATTENTION IF IRRITATION PERSISTS. DO NOT REUSE CONTAMINATED CLOTHING UNTIL PROPER LY CLEANED. INHALATION: REMOVE VICTIM TO FRESH AIR. PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING. GET IMMEDIATE MEDICAL ATTENTION. INGESTION: DILUTE BY GIVING PLENTY OF WATER TO DRINK, IF VICTIM IS CONSCIOUS A ND ALERT. GET MEDICAL ATTENTION.

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

Flash Point Method:PMCC  
Flash Point:>93.3C, 200.F  
Lower Limits:N/E  
Upper Limits:N/E  
Extinguishing Media:USE CARBON DIOXIDE, DRY

CHEMICAL, FOAM, WATER FOG.

Fire Fighting Procedures:FIREFIGHTER/RESCUE PERSONNEL SHOULD WEAR POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE RQUIPMENT. COOL EXPOSED CONTAINERS WITH WATER TO PREVENT PRESSURE BUILDUP. IF LARGE QU ANTITIES OF MATERIAL ARE INVOLVED, EVACUATE AREA AND FIGHT FIRE FROM A SAFE DISTANCE.

Unusual Fire/Explosion Hazard:DECOMPOSITION AND COMBUSTION PRODUCTS MAY BE TOXIC. CLOSED CONTAINERS MAY VIOLENTLY RUPTURE UNDER FIRE CON DITIONS.

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

Spill Release Procedures:SMALL SPILL: ACTIVATE EXHAUST VENTILATION IN SPILL AREA. WIPE UP OR ABSORB SPILLED MATERIAL WITH VERMICULITE OR OTHER SIMILAR MATERIAL. WASH AREA WITH SOAPY WATER TO REMOVE RESIDUE. COLLECT ABSORBED M ATERIAL AND WATER RINSES IN APPROPRIATE CONTAINERS. DISPOSE OF IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS. LARGE SPILL: (SEE OTHER).

Neutralizing Agent:NO DATA P ROVIDED BY MANUFACTURER.

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

Handling and Storage Precautions:EMPLOYEES MUST BE PROPERLY TRAINED IN SAFE HANDLING OF THIS PRODUCT PRIOR TO USE. STORE IN COOL, DRY LOCATION WITH ADEQUATE VENTILATION. KEEP CONTAINER TIGHTLY SEALED WHEN NOT IN USE. KEEP AWAY FROM OPEN FLAMES AND HEAT SOURCES. CONSULT PRODUCT TECHNICAL BULLETIN FOR DETAILED STORAGE INFORMATION.

Other Precautions:BECAUSE USAGE CONDITIONS VARY DEPE NDING ON CUSTOMER APPLICATION, SPECIFIC SAFE HANDLING PROCEDURES SHOULD BE DEVELOPED BY A PERSON KNOWLEDGEABLE IN THE INTENDED USAGE CONDITIONS, AND EQUIPMENT. EMPLOY EES MUST BE TRAINEDIN SAFE HANDLING OF THIS PRODUCT PRIOR TO USE.

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

Respiratory Protection:USE AN APPROPRIATE, PROPERLY FITTED RESPIRATOR IF EXPOSURES EXCEED PEL/TLV VALUES. THE TYPE OF RESPIRATORY PROTECTION SELECTED (SCBA, AIR-PURIFYING, E

TC.) WILL DEPEND ON THE  
CONDITIONS OF USE. OBSERVE OSHA REGULATIONS FOR RESPIRATORY  
PROTECTION (29 CFR 1910.134).

Ventilation:PROVIDE EFFECTIVE MECHANICAL EXHAUST VENTILATION TO DRAW  
VAPORS, MISTS, OR FUMES AWAY FROM THE WORKER AND PREVENT ROUTINE  
INHALATION.

Protective Gloves:WEAR PROTECTIVE GLOVES.NEOPRENE GLOVES OVER RUBBER  
LATEX GLOVES RECOMMENDED.

Eye Protection:SPLASH-PROOF CHEMICAL GOGGLES, OR FACE SHIELD.

Other Protective Equipment:CHEMICAL-RESISTANT APRON AND ADDITI  
ONAL

IMPERVIOUS CLOTHING TO PREVENT SKIN CONTACT, CONTAMINATION OF  
CLOTHING AND POSSIBLE SKIN ABSORPTION. EMERGENCY EYE WASH AND  
SAFETY SHOWER MUST BE AVAILABLE.

Work Hygienic Practices:WASH HANDS AND FACE THOROUGHLY AFTER HANDLING  
THIS PRODUCT AND BEFORE EATING, DRINKING OR SMOKING. NORMAL WORK  
CLOTHING SHOULD BE WASHED BEFORE RE-USE.

Supplemental Safety and Health

THIS ENTRY DESCRIBES CATALYST 11 ITEM OF A THREE PART KIT. SEE THIS  
SAME NSN FOR DATA COVERING STYCAST 265

1-40 BLACK, MSDS SERIAL #

CKVTW AND CATALYST 9, MSDS SERIAL # CKVTY, THE OTHER TWO ITEMS IN K  
IT.

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

HCC:B2

Boiling Pt:B.P. Text:ND

Vapor Pres:ND

Vapor Density:ND

Spec Gravity:1.02 - 1.14

VOC Pounds/Gallon:541

Solubility in Water:ND

Appearance and Odor:DARK BROWN LIQUID

Percent Volatiles by Volume:>70

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

Stability Indicator/Materials to Avoid:YES

INCOMPAT

IBLE WITH STRONG OXIDIZERS, ACIDS, BASES. UNCONTROLLED MIXING WITH EPOXIDES MAY CAUSE NON-HAZARDOUS POLYMERIZATION OF THE EPOXY. Stability Condition to Avoid:PRODUCT IS STABLE UNDER NORMAL HANDLING AND STORAGE CONDITIONS. AVOID STORAGE IN OPEN CONTAINERS, EXPOSURE TO OPEN FLAME, UNCONTROLLED EXPOSURE TO HEAT, INCOMPATIBLE SUBSTANCES.

Hazardous Decomposition Products:CARBON MONOXIDE, CARBON DIOXIDE, ALDEHYDES, AMINES, ANILINE, ACIDS AND OTHER ORGANIC SUBSTANCES MAY BE FORMED DURING COMBUSTION.

Conditions to Avoid Polymerization:HAZARDOUS POLYMERIZATION WILL NOT OCCUR. UNCONTROLLED MIXING WITH EPOXIDES MAY CAUSE NON-HAZARDOUS POLYMERIZATION OF EPOXY.

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

Toxicological Information:CHRONIC HEALTH EFFECTS: STUDIES WITH LABORATORY TEST ANIMALS INDICATE THAT N-METHYL PYRROLIDONE MAY BE CYTOTOXIC BY THE ORAL AND INTRAPERITONEAL ROUTES. TERATOGENIC EFFECTS HAVE RESULTED ONLY AT MATERNALLY TOXIC DOSAGE LEVELS.

THESE EFFECTS WERE NOT REPORTED AT DOSES TOLERATED BY THE MOTHER. EXPERIENCE TO DATE HAS NOT DEMONSTRATED TERATOGENIC EFFECTS IN HUMANS. N-PHENYLENE DIAMINE MAY CAUSE LIVER AND KIDNEY EFFECTS AS A RESULT OF SHORT INHALATION, INGESTION OR SKIN EXPOSURES, BASED ON TESTS OF LABORATORY ANIMALS. THIS COMPOUND HAS NOT DEMONSTRATED ANY CARCINOGENIC ACTIVITY.

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

Ecological:NO DATA PROVIDED BY MANUFACTURER

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

Waste Disposal Methods:DISPOSE OF IN ACCORDANCE WITH CURRENT FEDERAL, STATE, AND LOCAL REGULATIONS.

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

Transport Information:D.O.T. INFORMATION: PHENYLENE DIAMINE, 6.1, UN1673, PGIII.

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

SARA Title III Information:THIS PRODUCT DOES NOT CONTAIN ANY SUBSTANCES REGULATED BY THE

LATED BY THE SARA SECTION 313 AMENDMENTS TO RCRA.

Federal Regulatory Information:TSCA STATUS: ALL COMPONENTS OF THIS PRODUCT ARE LISTED IN THE EPA TOXIC SUBSTANCE CONTROL ACT INVENTORY. THIS PRODUCT CONTAINS THE FOLLOWING SUBSTANCES WHICH ARE SUBJECT TO TSCA SECTION 12(B) EXPORT NOTIFICATION REQUIREMENTS: N-PHENYLENE DIAMINE (CAS# 108-45-2).

State Regulatory Information:NO DATA PROVIDED BY MANUFACTURER.

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

Discl

claimer (provided with this information by the compiling agencies):

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