

EMERSON AND CUMING -- CATALYST 11 -- 5970-00-787-8319

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

Product ID:CATALYST 11

MSDS Date:10/31/1998

FSC:5970

NIIN:00-787-8319

Status Code:A

Kit Part:Y

MSDS Number: CKTDG

=== Responsible Party ===

Company Name:EMERSON AND CUMING

Address:46 MANNING ROAD

City:BILLERICA

State:MA

ZIP:01821

Country:US

Info Phone Num:978-436-9781

Emergency Phone Num:(800)424-9300

Resp. P

arty Other MSDS Num.:600308

Preparer's Name:DAVID HAAS

Chemtrec Ind/Phone:(800)424-9300

CAGE:UO004

=== Contractor Identification ===

Company Name:EMERSON AND CUMING

Address:46 MANNING ROAD

Box:City:BILLERICA

State:MA

ZIP:01821

Country:US

Phone:978-436-9781

CAGE:UO004

Company Name:MCKEOWN ROBERT CO. INC.

Address:111 CHAMBERS BROOK RD.

Box:City:SOMERVILLE

State:NJ

ZIP:08876

Country:US

Phone:908-218-9000

Contract Num:SP0430-00-M-H664

CAGE:7B953

===== Composition/Information on Ingredients

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Inged Name:M-PHENYLENE DIAMINE
Minumum % Wt:70.
Maxumum % Wt:80.
ACGIH TLV:0.1 MG/M3

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

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Hazards Identification =====

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:TARGET ORGANS: LIVER, KIDNEY. EYES:
SEVERELY 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
PRODUCT MAY CAUSE SKIN SENSITIZATION/ALLERGIC SKIN REACTIONS WHICH
MAY BE SEVERE IN CERTAIN INDIVIDUALS. MAY BE ABSORBED THROUGH SKIN.
INHALATION: MAY CAUSE RESPIRATORY IRRITATION. MAY CAUSE
SENSITIZATION RESPONSES IN SUSCEPTIBLE INDIVIDUALS; REACTIONS MAY
BE SEVERE IN SOME CASES. SYMPTOMS MAY BE DELAYED. INGESTION:
HARMFUL IF SWALLOWED.

Explanation of Carcinogenicity:M-PHENYLENE DIAMINE HAS NOT DEMONS
TRATED
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 TEMPORARY, 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 A PRE-EXISTING AMINE
SENSITIVITY MAY BE AFFECTED UPON SUBSEQUENT EXPOSURE, EVEN AT
LEVELS BELOW THE ACGIH TLV.

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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
CONTAMINATED CLOTHING AND FLUSH THE AFFECTED AREA OF THE SKIN
THOROUGHLY WITH PLE N

TY OF WATER. FOLLOW BY WASHING WITH SOAP AND WATER. GET MEDICAL ATTENTION IF IRRITATION PERSISTS. DO NOT REUSE CONTAMINATED CLOTHING UNTIL PROPERLY 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 AND ALERT. GET MEDICAL ATTENTION.

===== Fire Fighting Measure =====
S =====

Flash Point Method:PMCC

Flash Point:>93.3C, 200.F

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 EQUIPMENT. COOL EXPOSED CONTAINERS WITH WATER TO PREVENT PRESSURE BUILDUP. IF LARGE QUANTITIES 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 CONDITIONS.

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

Spill Release Procedures:STOP SOURCE OF SPILL. ACTIVATE EXHAUST VENTILATION IN AREA. DIKE AREA TO PREVENT RELEASES TO SEWERS, DRAINS, WATERWAYS. COLLECT SPILL FOR SALVAGE/DISPOSAL. APPLY ABSORBENT MATERIAL TO SOAK UP RESIDUE. WASH AREA WITH SOAPY WATER. PREVENT RUNOFF FROM ENTERING WATERWAYS. TRANSFER ABSORBED MATERIAL AND WATER RINSES TO CONTAINERS. DISPOSE OF IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.

===== 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.
CON

SULT PRODUCT TECHNICAL BULLETIN FOR DETAILED STORAGE
INFORMATION.

Other Precautions:BECAUSE USAGE CONDITIONS VARY DEPENDING 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 TRAINED IN 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, ETC.) 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.

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

Other Protective Equipment:CHEMICAL-RESISTANT APRON AND ADDITIONAL 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.

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

HCC:C2

Boiling Pt:B.P. Text:ND

Vapor Pres:70

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

Stability Indicator/Materials to Avoid:YES

INCOMPATIBLE 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 NORM

AL 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 LAB TEST ANIMALS INDICATE N-METHYL PYRROLIDONE MAY BE EMBRYOTOXIC BY ORAL AND INTERPERITONEAL ROUTES. TERATOGENIC EFFECTS RESULTED ONLY AT MATERNALLY TOXIC DOSAGES . EFFECTS WERE NOT REPORTED AT DOSE LEVELS TOLERATED BY THE MOTHER. EXPERIENCE HAS NOT DEMONSTRATED TERATOGENIC EFFECTS IN HUMANS. M-PHENYLENE MAY CAUSE LIVER AND KIDNEY EFFECTS AS RESULT OF SHORT INHALATION, INGESTION, OR SKIN EXPOSURES, BASED ON TESTS ON LAB ANIMALS. THIS COMPOUND HAS BEEN DETERMINED TO CAUSE MUTAGENIC CHANGES IN CULTURED BACTERIAL AND MAMMALIAN CELLS.

===== 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 DIAMINES; 6.1; UN 1673;PG III.

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

SARA Title III Information:SARA STATUS: THE REPORTABLE SUBSTANCES REFERENCED IN SECTION 2 WHICH ARE SUBSTANCES REGULATED BY THE SARA SECTION 313 AMENDMENTS TO RCRA ARE AS FOLLOWS: M-PHENYLENE DIAMINE (108-45-2)

Federal Regulatory Information:TSCA STATUS: ALL COMPONENTS OF THIS PRODUCT ARE LISTED IN THE EPA TOXIC SUBSTANCE CONTROL ACT INVENTORY. THIS PRODUCT CONTAINS T

THE FOLLOWING SUBSTANCES WHICH ARE

SUBJECT TO TSCA SECTION 12(B) EXPORT NOTIFICATION REQUIREMENTS:

M-PHENYLENE DIAMINE (108-45-2).

State Regulatory Information: VOLATILE ORGANIC COMPOUND (V.O.C.) CONTENT
AS TESTED IN ACCORDANCE WITH THE SOUTHERN CALIFORNIA AIR QUALITY
MANAGEMENT DISTRICT RULE 109 (EPA TEST METHOD 24): 540.5 G/L.S

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

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