

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: CKWKG
=== 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
Chemtrek 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
CAGE:UO039
Company Name:TRIMAN INDUSTRIES INC
Address:420 COMMERCE LN SUITE 8
Box:City:WEST
BERLIN
State:NJ
ZIP:08091
Country:US
Phone:856-767-7945 /FAX: 856-767-7154
Contract Num:SP0430-99-M-TC76
CAGE:0ZBE8

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

Ingred Name:M-PHENYLENE DIAMINE
CAS:108-45-2
RTECS #:SS7700000
Minimum % Wt:70.
Maximum % Wt:80.
ACGIH TLV:0.1 MG/M3

Ingred Name:N-METHYL PYRROLIDONE
CAS:872-50-4
Code:F

try: Inhalation: YES Skin: YES Ingestion: NO
Reports of Carcinogenicity: NTP: NO IARC: NO OSHA: NO

Health Hazards Acute and Chronic: EYE CONTACT: CONTAINS MATERIALS IRRITATING TO EYES. SKIN CONTACT: CONTAINS MATERIALS WHICH CAUSE MODERATE SKIN IRRITATION. PROLONGED OR REPEATED EXPOSURE TO THE LIQUID MAY EXERT A DEFATTING OR DRYING ACTION ON THE SKIN, POSSIBLY RESULTING IN DERMATITIS. THIS PRODUCT MAY CAUSE SKIN SENSITIZATION/ ALLERGIC SKIN REACTIONS WHICH MAY BE SEVERE IN C

CERTAIN INDIVIDUALS. MAY BE ABSORBED THROUGH THE SKIN I NHALATION: HEATING CAN GENERATE VAPORS THAT MAY CAUSE RESPIRATORY IRRITATION AND RESPIRATORY SENSITIZATION. INGESTION: HARMFUL IF SWALLOWED.

Explanation of Carcinogenicity: THIS COMPOUND HAS NOT DEMONSTRATED ANY CARCINOGENIC ACTIVITY.

Effects of Overexposure: EYES: IRRITATION, BLURRED VISION, BURNING SENSATION, TEARING. SKIN: IRRITATION, DEFATTING OR DRYING, DERMATITIS, SENSITATION, RASH, ITCHING, HIVES, SWELLING OF EXT

REMITIES, ORANGE STAINING. INHALATION: RESPIRATORY IRRITATION, NAUSEA, HEADACHE, RESPIRATORY SENSITIZATION, TIGHTNESS OF CHEST, ASTHMA-LIKE SYMPTOMS, RESPIRATORY DISTRESS.

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

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

First Aid

:EYES: FLUSH WITH WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION. SKIN: REMOVE CONTAMINATED CLOTHING. FLUSH EXPOSED SKIN WITH WATER. FOLLOW BY WASHING WITH SOAP AND WATER. GET MEDICAL ATTENTION IF IRRITATION PERSISTS. LAUNDRY CONTAMINATED CLOTHING BEFORE REUSE. INHALATION: MOVE VICTIM TO FRESH AIR. PROVIDE OXYGEN IF BREATHING DIFFICULT. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING. GET MEDICAL ATTENTION. INGESTION: DILUTE BY GIVING PLENTY OF WATER TO DRINK, IF VICTIM IS CONSCIOUS AND ALERT. NEVER GIVE ANYTHING BY MOUTH TO DROSEY, UNCONSCIOUS, OR CONVULSING PERSON. GET MEDICAL ATTENTION.

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

Flash Point Method: PMCC

Flash Point: >93.3C, 200.F

Lower Limits: ND

Upper Limits: ND

Extinguishing Media: CARBON DIOXIDE, DRY CHEMICAL, FOAM, WATER FOG.

Fire Fighting Procedures: FIREFIGHTERS/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: CONDUCT SPILL RESPONSE IN ACCORDANCE WITH OSHA

29 CFR 1910.120. VENTILATE AREA. STOP LEAK IF POSSIBLE. DIKE AREA TO CONTAIN SPILL AND PREVENT RELEASE TO SEWERS, DRAINS, OR WATERWAYS. COLLECT SPILLED MATERIAL FOR SALVAGE OR DISPOSAL. SOAK UP RESIDUE WITH ABSORBENT. WASH AREA WITH SOAPY WATER. PREVENT RUNOFF FROM ENTERING WATERWAYS. TRANSFER ABSORBED MATERIAL AND WATER RINSES TO WASTE CONTAINERS.

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

Handling and Storage Precautions: STORE IN A COOL, DRY LOCATION WITH

ADEQUATE VENTILATION. KEEP CONTAINER TIGHTLY SEALED WHEN NOT IN USE. KEEP AWAY FROM OPEN FLAMES AND HEAT SOURCES. CONSULT THIS PRODUCT TECHNICAL BULLETIN FOR DETAILED STORAGE INFORMATION.

Other Precautions: EMPLOYEES MUST BE PROPERLY TRAINED IN SAFE HANDLING OF THIS PRODUCT PRIOR TO USE. NORMAL WORK CLOTHING SHOULD BE WASHED BEFORE REUSE. WASH HANDS AND FACE THOROUGHLY AFTER HANDLING THIS PRODUCT AND BEFORE EATING, DRINKING, OR SMOKING.

===== Exposure

Controls/Personal Protection =====

Respiratory Protection: USE APPROPRIATE, PROPERLY FITTED RESPIRATOR IF EXPOSURE EXCEEDS PEL/TLV VALUES. TYPE OF RESPIRATOR SELECTED (SCBA, AIR PURIFYING, ETC) WILL DEPEND ON CONDITIONS OF USE. OBSERVE OSHA REGULATIONS 29 CFR 1910.134. IT SHOULD BE NOTED ENGINEERING CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT MAY NOT BE SUFFICIENT TO PROTECT PERSONS ALREADY SENSITIZED TO THE PRODUCT.

Ventilation: PROVIDE MECHANICAL EXHAUST VENTILATION

EFFICIENT TO PREVENT

RESPIRATORY IRRITATION, AS VAPORS CAN PRODUCE IRRITATION AND CAUSE ALLERGIC RESPIRATORY REACTIONS.

Protective Gloves:WEAR NEOPRENE GLOVES OVER RUBBER LATEX GLOVES.

Eye Protection:SPLASH PROOF CHEMICAL GOGGLES OR FACE SHIELD.

Other Protective Equipment:A PROPER CHEMICAL RESISTANT APRON AND ADDITIONAL IMPERVIOUS CLOTHING TO PREVENT SKIN CONTACT. EYE WASH FACILITIES AND SAFETY SHOWER MUST BE AVAILABLE.

Work Hygienic Practices:NORMAL WORK CLOTHING SHOULD BE WASHED BEFORE

REUSE. WASH HANDS AND FACE THOROUGHLY AFTER HANDLING PRODUCT AND BEFORE EATING, DRINKING, SMOKING.

Supplemental Safety and Health

THIS ENTRY DESCRIBES PART 2, CATALYST 11, OF A THREE PART KIT. SEE THIS SAME NSN, CATALYST 9, FOR KIT PART ONE DATA AND THIS SAME NSN, STYCAST 2651 BLACK, FOR KIT PART THREE DATA.

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

HCC:B2

Boiling Pt:B.P. Text:N/D

Vapor Pres:NOT DETERMINED

Vapor Density:ND

Spec Gravity:1.02-1.1

4 (H₂O=1)

VOC Pounds/Gallon:540

Solubility in Water:NOT DETERMINED.

Appearance and Odor:DARK BROWN LIQUID

Percent Volatiles by Volume:ND

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

Stability Indicator/Materials to Avoid:YES

STRONG OXIDIZERS, ACIDS, BASES, EPOXIDES.

Stability Condition to Avoid:AVOID STORAGE IN OPEN CONTAINERS, EXPOSURE TO OPEN FLAME OR UNCONTROLLED EXPOSURE TO HEAT, UNCONTROLLED MIXING WITH CURING AGENTS OR EXPOSURE TO INCOMPATIBLE SUBSTANCES.

H

azardous Decomposition Products:CARBON MONOXIDE, CARBON DIOXIDE, ALDEHYDES, AMINES, ANILINE, ACIDS, AND OTHER ORGANIC SUBSTANCES MAY BE FORMED DURING COMBUSTION. CHEMICAL NATURE AND QUANTITY OF DECOMPOITION BY-PRODUCTS WILL VARY.

Conditions to Avoid Polymerization:WILL NOT OCCUR. HOWEVER REVIEW REACTIVITY DATA CONCERNING CONDITIONS TO AVOID AND INCOMPATABLE SUBSTANCES.

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

Ecological:NO DATA PROVIDED BY MANUFA

CTURER

===== 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; CLASS
6.1; UN 1673; PG III. FREIGHT CODE: 2055

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

SARA Title III Information:THIS PRODUCT DOES NOT CONTAIN ANY S
UBSTANCES

REGULATED 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:
M-PHENYLENE DIAMINE, CAS# 108-45-2.

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

Disclaimer (provided with this information by the c
ompiling agencies):

This information is formulated for use by elements of the Department
of Defense. The United States of America in no manner whatsoever,
expressly or implied, warrants this information to be accurate and
disclaims all liability for its use. Any person utilizing this
document should seek competent professional advice to verify and
assume responsibility for the suitability of this information to their
particular situation.