

EMERSON & CUMING SPECIALTY POLYMERS DIV OF NATIONAL STARCH -- CATALYST 9 (SEE SUPPL) -- 5970-00-787-8319

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

Product ID:CATALYST 9 (SEE SUPPL)

MSDS Date:05/22/2000

FSC:5970

NIIN:00-787-8319

Status Code:A

Kit Part:Y

MSDS Number: CLFDD

=== Responsible Party ===

Company Name:EMERSON & CUMING SPECIALTY POLYMERS DIV OF NATIONAL STARCH

Address:46 MANNING ROAD

City:BILLE

RICA

State:MA

ZIP:01821

Country:US

Info Phone Num:781-828-3300 OR 978-436-9781

Emergency Phone Num:202-483-7616

Resp. Party Other MSDS Num.:600008

Preparer's Name:DAVID HAAS

Chemtrec Ind/Phone:(800)424-9300

CAGE:TO215

=== Contractor Identification ===

Company Name:EMERSON & CUMING SPECIALTY POLYMERS DIV OF NATIONAL STARCH

Address:46 MANNING ROAD

Box:City:BILLERICA

State:MA

ZIP:01821

Country:US

Phone:781-828-3300 OR 978-436-9781

CAGE:TO215

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:SP0450-99-M-Y157

CAGE:7B953

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

Ingred Name:TETRAETHYLENE PENTAMINE

Minumum % Wt:90.

Maxumum % Wt:100.

Ingred Name:TRIETHYLENE TETRAMINE

< Wt:5.

Ingred Name:PENTAETHYLENE HEXAMINE

< Wt:5.

THE EYES; MAY CAUSE BURNS AND POSSIBLE CORNEAL INJURY. PERMANENT IMPAIRMENT OF VISION OR BLINDNESS MAY OCCUR. SKIN: CONTAINS MATERIALS CORROSIVE TO THE SKIN; MAY CAUSE SEVERE BURNS AND BLISTERING. THIS PRODUCT MAY CAUSE SKIN SENSITIZATION/ALLERGIC SKIN REACTIONS WHICH MAY BE SEVERE IN CERTAIN INDIVIDUALS; SYMPTOMS INCLUDE RASH, ITCHING, HIVES, SWELLING OF THE EXTREMITIES. MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN. INHALATION: VAPORS MAY CAUSE IRRITATION, NAUSEA, AND HEADACHES. MAY CAUSE RESPIRATORY SENSITIZATION RESPONSES IN SUSCEPTIBLE INDIVIDUALS; REACTIONS MAY BE SEVERE IN SOME CASES.

Effects of Overexposure:EYE: CORROSIVE TO EYES; MAY CAUSE BURNS & POSSIBLE CORNEAL INJURY. PERMANENT IMPAIRMENT OF VISION OR BLINDNESS MAY OCCUR. SKIN: CONTAINS MATERIALS CORROSIVE TO SKIN; MAY CAUSE SEVERE BURNS AND BLISTERING. MAY CAUSE SKIN SENSITIZATION/ALLERGIC SKIN REACTIONS WHICH MAY BE SEVERE IN CERTAIN INDIVIDUALS; SYMPTOMS INCLUDE RASH, ITCHING, HIVES, SWELLING OF THE EXTREMITIES. MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN. INHALATION: VAPORS MAY CAUSE IRRITATION, NAUSEA, AND HEADACHES. MAY CAUSE RESPIRATORY SENSITIZATION RESPONSES IN SUSCEPTIBLE INDIVIDUALS; REACTIONS MAY BE SEVERE IN SOME CASES. MAY CAUSE BURNS TO MOUTH & UPPER G/I TRACT.

Medical Cond Aggravated by Exposure:EXPOSURE MAY AGGRAVATE PREEXISTING SKIN, EYE AND/OR RESPIRATORY DISORDERS.

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

First Aid:EYE: IMMEDIATELY FLUSH THOROUGHLY WITH WATER FOR AT LEAST 15 MIN WHILE HOLDING EYELIDS OPEN. GET IMMEDIATE MEDICAL ATTENTION. SKIN: IMMEDIATELY FLUSH WITH PLENTY WATER, WHILE REMOVING CONTAMINATED CLOTHING/SHOES. FOLLOW BY THOROUGHLY WASHING WITH SOAP & WATER. AVOID SCRUBBING, AS THIS COULD INCREASE SKIN ABSORPTION & WORSEN EFFECT OF CHEMICAL CONTACT. GET IMMEDIATE MEDICAL HELP. CLEAN CLOTHES BEFORE REUSE. INHALATION: MOVE TO FRESH AIR. GIVE OXYGEN IF BREATHING IS DIFFICULT. GIVE CPR IF NOT BREATHING. GET MEDICAL HELP NOW. INGESTION: DO NOT INDUCE VOMITING. IF CONSCIOUS, GIVE WATER. NEVER GIVE ANYTHING BY MOUTH IF UNCONSCIOUS.

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

Flash Point:>93.3C, 200.F
Extinguishing Media:USE CARBON DIOXIDE, DRY CHEMICAL, FOAM, WATER FOG.
Fire Fighting Procedures:FIREFIGHTERS/RESCUE PERSONNEL SHOULD WEAR POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS

RATUS AND FULL

PROTECTIVE EQUIPMENT. COOL EXPOSED CONTAINERS WITH WATER TO PREVENT PRESSURE BUILDUP. IF LARGE Q UANTITIES 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 CONTAIENRS MAY VIOLENTLY RUPTURE UNDER FIRE CONDITIONS

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

Spill Release Procedures:SMALL SPILLS: ABSORB WITH VERMICULITE. WAS H

AREA WITH SOAPY WATER. COLLECT MATERIAL & RINSES IN APPROPRIATE CONTAINERS. LARGE SPILLS: LIMIT ACCESS. SHUT OFF SOURCE IF POSSIBLE WITHOUT INJURY. VENTILAT E AREA. DIKE TO PREVENT GETTING INTO WATERWAYS. COLLECT MATERIAL FOR SALVAGE/DISPOSAL. APPLY ABSORBENT. WASH AREA WITH SOAPY WATER. PREVENT RUNOFF FROM ENTERING WATERWAYS. TRANSFER TO CONTAINERS.

Neutralizing Agent:NOT PROVIDED

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

Handling and Storag

e 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 THE PRODUCT TECHNICAL BULLETIN FOR DETAILED STORAGE INFORMATION.

Other Precautions:NOT PROVIDED

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

Respiratory Protection:USE AN APPROPRIATE, PROPERLY FITTED RESPIRATOR IF SYMPTOMS OF EXPOSURE APPEAR. THE TYPE OF RESPIRATORY PROTECTION SELEC

TED(SCBA, AIR-PURIFYING ETC.)WILL DEPEND ON THE CONDITIONS OF USE. OBSERVE OSHA R EGLATIONS FOR RESPIRATORY PROTECTION (29 CFR 1910.134)

Ventilation:PROVIDE EFFECTIVE MECHANICAL EXHAUST VENTILATION TO DRAW VAPORS, MISTS, OR FUMES GENERATED DURING PROCESSING AWAY FROM THE WORKER AND TO PREVENT ROUTINE INHALAT

Protective Gloves:NITRILE GLOVES

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

Other Protective Equipment:A ROPER CHEMICAL RESISTA

ND APRON AND

ADDITIONAL IMPERVIOUS CLOTHING TO PREVENT ALL SKIN CONTACT,
CONTAMINATION OF CLOTHING AND POSSIBLE ABSORPTION THROUGH THE SKIN.

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

Supplemental Safety and Health

THIS IS A KIT CONSISTING OF CATALYST 9; STYCAST 2651 BLACK.

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

HCC:B

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Boiling Pt:=317.8C, 604.F

Vapor Pres:(MMHG@25C)AIR

Spec Gravity:(WATER=1)0.99

Solubility in Water:SOLUBLE

Appearance and Odor:AMBER LIQUID, AMINE ODOR

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

Stability Indicator/Materials to Avoid:YES

INCOMPATIBLE WITH STRONG OXIDIZERS, ACIDS, BASES. UNCONTROLLED MIXING
WITH EPOXIDES MAY CAUSE HAZARDOUS EXOTHERMIC POLYMERIZATION,
POSSIBLY RESULTING IN EVOLUTION OF SMOKE AND TOXIC FUMES.

Stability Condition to Avoid:AVOID ST

ORAGE IN OPEN CONTAINERS, EXPOSURE

TO OPEN FLAME OR UNCOLTROLLED EXPOSURE TO HEAT, UNCONTROLLED MIXING
WITH EPXIES OR EXPOSURE TO INCOMPATIBLE SUBSTANCES.

Hazardous Decomposition Products:CARBON MONOXIDE, CARBON DIOXIDE,
OXIDES OF NITROGEN, AMMONIA, AMINES AND OTHER ORGANIC SUBSTANCES
MAY BE FORMED DURING COMBUSTION. THE CHEMICAL NATURE AND QUANTITY
OF DECOMPOSITION BY PRODUCTS WILL VARY

Conditions to Avoid Polymerization:WILL NOT OCCUR; HOWEVER, REVIEW
REACTIVITY DATA CO

NCERNING CONDITIONS TO AVOID AND INCOMPATIBLE
SUBSTANCE

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

Toxicological Information:REPEATED OVEREXPOSURE TO POLYETHYLENE
POLYAMINES (INCLUDING DIETHYLENE TRIAMINE, TRIETHYLENE TETRAMINE &
TETRAETHYLENE PENTAMINE) ARE REPORTED TO CAUSE LIVER & KIDNEY
INJURY IN TESTS ON LABORATORY ANI MALS.

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

Ecological:NOT PROVIDED

===== Disposal

Considerations =====

Waste Disposal Methods:PILL RESPONSE OPERATIONS MUST BE CONDUCTED IAW OSHA 29CFR1910.120 REVIEW ENTIRE MSDS BEFORE PROCEEDING WITH SPILL RESPONSE. DISPOSE OF IN ACCORDANCE WITH CURRENT FEDERAL, STATE, AND LOCAL REGULATIONS .

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

Transport Information:DOT: POLYAMINES, LIQUID, CORROSIVE, N.O.S.
(TETRAETHYLENE PENTAMINE, TRIETHYLENE TETRAMINE), 8, UN2735, PG III

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

Federal Regulatory Information:ALL COMPONENTS LISTED IN TSCA INVENTORY.
State Regulatory Information:VOLATILE ORGANIC COMPOUND CONTENT IAW SOUTHERN CALIFORNIA AIR QUALITY MANAGEMENT DISTRICT RULE 109 (EPA TEST METHOD 24): 441.5 G/L

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