

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:BILLERICA

State:MA

ZIP:01821

Country:US

Info Phone Num:781-828-3300 OR 9

78-436-9781

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.

===== Hazards Identification =====

Health Hazards Acute and Chronic:EYE: CONTAINS MATERIALS CORROSIVE TO 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 C AUSE 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 E XTREMITIES. MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN. INHALATION: VAPORS MAY CAUSE IRRITATION, NAUSEA, AND HEADACHES. MAY CAUSE RESPIRATORY SENSITIZATION RSPONSES IN SUSCEPTIBLE INDIVIDUALS; REACTI ONS 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 BLISTE RING. MAY CAUSE SKIN SENSITIZATION/ALLERGIC SKIN REACTIONS WHICHMAY BE SEVERE IN CERTAIN INDIVIDUALS; SYMPTOMS INCLUDE RASH, ITCHING, HIVES, SWELLING OF THE EXTREMITIES. MAY BE HARMF

UL IF ABSORBED THR OUGH 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 CAUS E 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 THOROUGH

LY 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
B

REATHING. 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 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:SMALL SPILLS: ABSORB WITH VERMICULITE. WASH
AREA WITH SOAPY WATER. COLLECT MATERIAL & RINSES IN APPROPRIATE
TE

CONTAINERS. LARGE SPILLS: LIMIT ACCESS. SHUT OFF SOURCE IF POSSIBLE
WITHOUT INJURY. VENTILATE 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 Storage Precautions:STORE IN A COOL, DRY LOCATION WITH
ADEQUATE VENTILATION

LATION. 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
SELECTED(SCBA, AIR-PURIFYING ETC.)WILL DEPEND ON THE CONDITIONS OF
U

SE. OBSERVE OSHA REGULATIONS 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 INHALATION

Protective Gloves:NITRILE GLOVES

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

Other Protective Equipment:A PROPER CHEMICAL RESISTANT 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:B2

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 STORAGE IN OPEN CONTAINERS, EXPOSURE
TO OPEN FLAME OR UNCONTROLLED

D 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 CONCERNING CONDITIONS TO AVOID AND INCOMPATIBLE
SUBSTANCE

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===== 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

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

Federal Reg
ulatory 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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