

EMERSON AND CUMING -- CATALYST 9 -- 5970-00-081-4333

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

Product ID:CATALYST 9

MSDS Date:12/31/1998

FSC:5970

NIIN:00-081-4333

Kit Part:Y

MSDS Number: CKSWH

=== 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. Party Other MSDS

Num.:600008

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:GRACE W R & CO EMERSON & CUMING DEWEY & ALMY CHEM

Address:869 WASHINGTON ST

City:CANTON

State:MA

ZIP:02021-2513

Country:US

Phone:617-935-4850

CAGE:04552

Company Name:KAMPI COMPONENTS CO., INC.

Address:210 RT 13

Box:721

City:BRISTOL

Sta

te:PA
ZIP:19007-3517
Country:US
Phone:215-736-2000
Contract Num:SP0430-00-M-H369
CAGE:7Z016
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:SP0430-01-M-NC53
CAGE:7B953
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:SP0411-01-M-EK17
CAGE:0ZBE8
Company Name:TRIMAN INDUSTRIES IN
C
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:SP0430-00-M-H518
CAGE:0ZBE8

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

Ingred Name:TETRAETHYLENE PENTAMINE
Minumum % Wt:60.
Maxumum % Wt:70.
Other REC Limits:NOT PROVIDED

Ingred Name:TRIETHYLENE TETRAMINE
Minumum % Wt:20.
Maxumum % Wt:30.
Other REC Limits:NOT PROVIDED

Ingred Name:PENTAETHYLENE HEXAMINE
= Wt:10.
Other REC Limits:NOT

PROVIDED

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

LD50 LC50 Mixture:NOT PROVIDED

Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO

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

Health Hazards Acute and Chronic:EYES: CORROSIVE; MAY CAUSE BURNS,
CORNEAL INJURY, PERMANENT IMPAIRMENT OF VISION, BLINDNESS.. SKIN:
CORROSIVE; MAY CAUSE SEVERE BURNS, BLISTERING, SEVERE SKIN
SENSITIZATION/ALLERGIC SKIN REACTIONS. HARMFUL IF ABSORBED THROUGH
SKIN

. INHALATION: VAPORS MAY CAUSE IRRITATION, NAUSEA, HEADACHES.
MAY CAUSE RESPIRATORY SENSITIZATION RESPONSES IN SUSCEPTIBLE
INDIVIDUALS; REACTIONS MAY BE SEVERE IN SOME CASES. SYMPTOMS MAY
BE DELAYED. INGESTION: HARMFUL IF SWALLOWED. MAY CAUSE BURNS TO
MOUTH, UPPER GI TRACT. CHRONIC: REPEATED OVEREXPOSURE TO
POLYETHYLENE POLYAMINES REPORTED TO CAUSE LIVER AND KIDNEY INJURY
IN TESTS ON LAB ANIMALS.

Explanation of Carcinogenicity:NONE

Effects of Overexposure:EYE CONTACT:

BURNS, CORNEAL INJURY. SKIN

CONTACT: RASH, ITCHING, HIVES, SWELLING OF EXTREMITIES.

INHALATION: IRRITATION, NAUSEA, HEADACHE, RESPIRATORY SENSITIZATION
RESPONSES. SYMPTOMS MAY INCLUDE TIGHTNESS OF CHEST, ASTHMA-LIKE
SYMPTOMS, RESPIRATORY DISTRESS; SYMPTOMS MAY BE DELAYED.

INGESTION:MAY CAUSE BURNS TO MOUTH AND UPPER GI TRACT.

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

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===== First Aid

Measures =====

First Aid:EYE: FLUSH WITH WATER FOR 15 MINUTES WHILE HOLDING EYELIDS
OPEN. GET MEDICAL HELP. SKIN: FLUSH AREA WITH PLENTY OF WATER,
WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. FOLLOW BY WASHING
WITH SOAP AND WATER. AVOID SCRUBBING, THIS COULD INCREASE SKIN
ABSORPTION AND WORSEN THE EFFECT. GET MEDICAL ATTENTION.
INHALATION: MOVE TO FRESH AIR. PROVIDE OXYGEN IF BREATHING IS
DIFFICULT. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING. G

ET

MEDICAL ATTENTION. INGESTION: DO NOT INDUCE VOMITING. GIVE WATER TO DRINK BUT NEVER GIVE ANYTHING BY MOUTH TO A DROWSY, UNCONSCIOUS, OR CONVULSING PERSON, GET MEDICAL ATTENTION IMMEDIATELY.

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Fire Fighting Measures
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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 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.

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Accidental Release Measures
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Spill Release Procedures:ACTIVATE AVAILABLE

EXHAUST VENTILATION

EQUIPMENT IN SPILL AREA. SHUT OFF SOURCE OF SPILL. DIKE TO PREVENT RELEASES TO SEWERS, DRAINS, WATERWAYS. COLLECT, WIPE UP/ABSORB SPILLED MATERIAL WITH VERMICULITE/OTHER MATERIAL. WASH AREA WITH SOAPY WATER TO REMOVE RESIDUE. COLLECT ABSORBED MATERIAL AND WATER RINSES IN APPROPRIATE CONTAINER FOR DISPOSAL. PREVENT RUNOFF FROM ENTERING SEWER OR WATERWAYS.

Neutralizing Agent:NOT PROVIDED

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Handling and Storage
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Handling and Storage Precautions:EMPLOYEES MUST BE PROPERLY TRAINED IN SAFE HANDLING OF PRODUCT PRIOR TO USE. 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:BECAUSE USAGE CONDITIONS VARY DEPENDING ON APPLICATION, SPECIFIC SAFE HANDLING PROCEDURES SHOULD BE DEVELOPED BY

A PERSON KNOWLEDGEABLE IN THE INTENDED USAGE CONDITIONS AND EQUIPMENT. DO NOT REUSE CO NTAMINATED CLOTHING UNTIL PROPERLY CLEANED. CONTAMINATED LEATHER ARTICLES, INCLUDING SHOES, CANNOT B E DECONTAMINATED.

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

Respiratory Protection:WEAR AN APPRIPRIATE, PROPERLY FITTED RESPIRATOR IF SYMPTOMS OF EXPOSURE APPEAR. 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). PROTECTIVE EQUIPMENT MAY NOT BE SUFFICIENT TO PROTECT PERSONS ALREADY SENSITIZED TO THIS MATERIAL.

Ventilation:PROVIDE EFFECTIVE MECHANICAL EXHAUST VENTILATION TO DRAW VAPORS, MISTS, FUMES GENERATED DURING PROCESSING AWAY FROM WORKERS AND PREVENT ROUTINE INHALATION.

Protective Gloves:PROTECTIVE NITRILE GLOVES.

Eye Protection:FACE SHIELD IN CONJUNCTION WITH SPLASH-PROOF CHEMICAL GOGGLES OR SA

FETY GLASSES

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

Work Hygienic Practices:WASH HANDS AND FACE THOROUGHLY AFTER HANDLING THIS PRODUCT AND BEFORE EATING, DRINKING OR SMOKING.

Supplemental Safety and Health

THIS IS A THREE PART KIT, SAME NSN. FOR OTHER TWO ITEMS IN THE KIT, SEE MSDS # CKSWD COVERING STYCAST 2651-40 BLACK, & MSDS SERIAL # CKSW

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FOR CATALYST 11. HCC FOR KIT= B2.

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

HCC:B2

NRC/State Lic Num:NOT RELEVANT

Boiling Pt:=317.8C, 604.F

Melt/Freeze Pt:M.P/F.P Text:NOT PROVIDED

Decomp Temp:Decomp Text:NOT PROVIDED

Vapor Pres:AIR

Spec Gravity:0.99

VOC Pounds/Gallon:442

pH:NOT PROVIDED

Viscosity:NOT PROVIDED

Evaporation Rate & Reference:NOT PROVIDED

Solubility in Water:SOLUBLE

Appearance and Odor:AMBER LIQUID, AMINE ODOR.

Percent Volatiles by Volume:N/D

C

Corrosion Rate:NOT PROVIDED

===== 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:PRODUCT IS STABLE UNDER NORMAL HANDLING AND STORAGE CONDITIONS. AVOID STORAGE IN OPEN CONTAINERS, EXPOSURE TO OPEN FLAME, UNCONTROLLED HEAT, UNCONTROLLED MIXING WITH EPOXIES.

ONTROLLED HEAT, UNCONTROLLED MIXING WITH EPOXIES.

Hazardous Decomposition Products:CO, CO2, 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 WIDELY.

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

Toxicological Information:NOT PROVIDED

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

Ecological:NOT PROVIDED

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

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

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

Transport Information:POLYAMINE, LIQUID, CORROSIVE, NOS (TETRAETHYLENE PENTAMINE, TRIETHYLENE TETRAMINE); 8; UN2735; PG III.

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

SARA Title III Information:SARA STATUS: THIS PRODUCT DOES NOT CONTAIN ANY SUBSTANCES 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.

State Regulatory Information:NOT PROVIDED

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

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