

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

Product ID:78-4309, PERMA-LOK (R) HH 120

MSDS Date:12/02/1997

FSC:8030

NIIN:01-395-3019

Status Code:A

MSDS Number: CKWGX

=== Responsible Party ===

Company Name:NATIONAL STARCH AND CHEMICAL CORP

Address:10 FINDERNE AVE

Box:6500

City:BRIDGEWATER

State:NJ

ZIP:08807

Country:US

Info Phone Num:908-685-5379; FAX:908685-5306

Emergency Phone Num:908

-685-5000(24 HOURS)

Preparer's Name:PHILIP A. TOSCANO

CAGE:85091

=== Contractor Identification ===

Company Name:NATIONAL STARCH AND CHEMICAL CORP

Address:10 FINDERNE AVE

Box:6500

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Country:US

Phone:908-685-5379; FAX:908685-5306

Contract Num:N00104-00-P-BD97

CAGE:85091

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

Ingred Name:TETRAETHYLENE GLYCOL, DIMETHACRYLATE

CAS:109-17-1

RTECS #:OZ4000000

> Wt:1.

Ingred Name:2-HYDROXYETHYL METHACR

YLATE
CAS:868-77-9
RTECS #:OZ4725000
> Wt:1.
Other REC Limits:3 PPM

Ingred Name:CUMENE HYDROPEROXIDE
CAS:80-15-9
RTECS #:MX2450000
> Wt:1.
OSHA PEL:50 PPM SKIN
ACGIH TLV:50 PPM SKIN TWA
EPA Rpt Qty:10 LBS
DOT Rpt Qty:10 LBS

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

LD50 LC50 Mixture:ORAL LD50 RAT= 382 MG/KG CUMENE HYDROPER
Routes of Entry: Inhalation:UNKNOWN Skin:YES Ingestion:YES
Health Hazards Acute and Chronic:TARGET ORGANS: SKIN, EYES. EYE:
IRRITATION
G & MAY INJURE EYE TISSUE IF NOT REMOVED PROMPTLY. SKIN:
FREQUENT OR PROLONGED CONTACT MAY IRRITATE & CAUSE DERMATITIS. MAY
CAUSE SKIN SENSITIZATION, A PARTIAL OR WHOLE-BODY DERMATITIC RASH
EXPERIENCED AFTER EXPOSURE, HOWEVER MINIMAL. INHALATION: BASED ON
ITS LOW VOLATILITY, PRODUCT IS NOT CONSIDERED TO BE A RESPIRATORY
HAZARD UNDER NORMAL CONDITIONS OF USE. IRRITATING &/OR TOXIC
VAPORS MAY BE RELEASED AT ELEVATED TEMPERATURES. INGESTION: EFFECTS
HAVE NOT BEEN EVALUATED BUT ARE ASSUMED TO CAUSE NAUSEA & VOMITING.
CHRONIC: SKIN SENSITIZATION & DERMATITIS.
Effects of Overexposure:EYE: IRRITATION. SKIN:IRRITATION, DERMATITIC
RASH. INGESTION: ASSUMED TO CAUSE NAUSEA & VOMITING.

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

First Aid:EYE: IMMEDIATELY FLUSH EYES WITH LARGE AMOUNTS OF WATER FOR
AT LEAST 15 MINS., LIFTING UPPER & LOWER LIDS. GET PROMPT MEDICAL
ATTENTION. SKIN: FLUSH EXPOSED AREAS THOROUGHLY WITH SOAP & WATER
UNTIL ALL CHEMICAL IS REMOVED. REMOVE CONTAMINATED CLOTHING &
LAUNDRY BEFORE REUSE. INHALATION: FIRST AID IS NOT NORMALLY
REQUIRED. REMOVE TO FRESH AIR. IF BREATHING IS DIFFICULT, GIVE
OXYGEN. IF BREATHING HAS STOPPED, GIVE ARTIFICIAL RESPIRATION. GET
MEDICAL ATTENTION. INGESTION: DO NOT INDUCE VOMITING. IF INDIVIDUAL
IS CONSCIOUS, GIVE MILK OR WATER TO DILUTE STOMACH CONTENTS. KEEP
WARM & QUIET. GET PROMPT MEDICAL ATTENTION.

===== Fire Fighting

Measures =====

Flash Point Method:SCC
Flash Point:=110.C, 230.F
Autoignition Temp:Autoignition Temp Text:N/D
Extinguishing Media:CO2, DRY CHEMICAL, FOAM, WATER FOG.
Fire Fighting Procedures:FIRE FIGHTERS SHOULD BE EQUIPPED WITH
SELF-CONTAINED BREATHING APPARATUS TO PROTECT AGAINST POTENTIALLY
TOXIC AND IRRITATING FUMES; COOL EXPOSED EQUIPMENT WITH WATER
SPRAY.
Unusual Fire/Explosion Hazard:POLYMERIZATION MAY TAKE PLACE AT ELEVATED
TEMPERATURES. MAY RELEASE TOXI
C AND IRRITATING FUMES.

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

Spill Release Procedures:WEAR PROTECTIVE CLOTHING. STOP LEAK IF YOU CAN
DO IT WITHOUT RISK. FOR SMALL SPILLS TAKE UP WITH SAND OR OTHER
INERT ABSORBENT MATERIAL & PLACE IN A CONTAINER FOR LATER DISPOSAL.
NOTE: IN BULK QUANTIT IES, PRODUCT ABSORBED ON INERT MATERIAL MAY
POLYMERIZE GENERATING SIGNIFICANT HEAT & PRESSURE. VENT DISPOSAL
CONTAINER TO PREVENT BUILDUP OF PRESSURE. CAN CAREF
ULLY SOLIDIFY
WITH ANAEROBIC SURFACE
Neutralizing Agent:CAN CAREFULLY SOLIDIFY WITH ANAEROBIC SURFACE
CONDITIONER AND DISPOSE OF AS SOLID WASTE.

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

Handling and Storage Precautions:STORAGE TEMPERATURE: ROOM TEMP.
SPECIAL SENSITIVITY: AVOID EXCESSIVE HEAT. STORE OUT OF DIRECT
SUNLIGHT IN A DRY AREA. MAXIMUM STORAGE TEMPERATURE IS 100F.
VENTILATION REQUIREMENTS: GENERAL.
Other Precautions:EMPTY CONTAINER WARNING
S- EMPTY CONTAINERS MAY
CONTAIN PRODUCT RESIDUE; FOLLOW MSDS AND LABEL WARNINGS EVEN AFTER
THEY HAVE BEEN EMPTIED.

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

Respiratory Protection:NONE REQUIRED UNDER NORMAL HANDLING CONDITIONS.
USE NIOSH APPROVED RESPIRATOR IF VAPOR OR MIST LEVELS ARE
IRRITATING.
Ventilation:GENERAL
Protective Gloves:WEAR APPROPRIATE PROTECTIVE GLOVES TO PREVENT CONTACT
WITH THIS SUBSTANCE.
Eye Protection:SAFETY GLASSES, GOGGLES OR

FACE SHIELD TO PROTECT
AGAINST SPLASHING.

Other Protective Equipment:NO SPECIAL CLOTHING REQUIRED FOR LOW VOLUME
ACTIVITY.

Work Hygienic Practices:REMOVE CLOTHING AND LAUNDER BEFORE REUSE IF
CONTAMINATED WITH PRODUCT. WASH HANDS WITH SOAP AND WATER IF
CONTACT WITH PRODUCT OCCURS OR BEFORE EATING, DRINKING, SMOKING, OR
USING TOILET FACILITIES.

Supplemental Safety and Health
PRODUCT NUMBER: 78-4309.

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

HCC:V5
Boiling Pt:B.P. Text:POLYMERIZES BEFORE BP
Vapor Pres:0.01 (77F)
Vapor Density:1.01
Spec Gravity:1.070
Viscosity:7000 CPS
Solubility in Water:INSOLUBLE
Appearance and Odor:RED LIQUID; MILD, PLEASANT ODOR.

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

Stability Indicator/Materials to Avoid:YES
METALS AND THEIR SALTS, PERMA-LOK ANAEROBIC SURFACE CONDITIONERS.
Stability Condition to Avoid:TEMPERATURES ABOVE 100F AND DIRECT
SUNLIGHT.
Hazardous Decomposition Products:THERM
AL DECOMPOSITION COULD PRODUCE
CARBON MONOXIDE, CARBON DIOXIDE, AND UNIDENTIFIED ORGANIC
COMPOUNDS.
Conditions to Avoid Polymerization:POLYMERIZE IN THE ABSENCE OF AIR,
SUNLIGHT, EXCESSIVE HEAT & CONTAMINATION BY METALS OR ANAEROBIC
SURFACE CONDITIONER.

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

Toxicological Information:2-HYDROXYETHYL METHACRYLATE: ORAL LD50 RAT >
5.0 G/KG, LOW ORDER OF TOXICITY. DERMAL LD50 RABBIT >5.0 G/KG, MAY
CAUSE IRRITATIO

N. INHALATION: VAPORS &/OR AEROSOLS WHICH MAY BE FORMED AT ELEVATED TEMPERATURES MAY BE IRRITATING TO EYES AND RESPIRATORY TRACT. CUMENE HYDROPEROXIDE: ORAL LD50 RAT= 382 - 800 MG/KG, CORROSIVE TO MOUTH, ESOPHAGUS AND STOMACH. CORROSIVE TO SKIN, CAUSES PERMANENT SKIN DAMAGE. INHALATION LC50 RAT= 700 PPM/6 HR. INHALATION OF DUST OR VAPORS MAY CAUSE SEVERE IRRITATION TO NASAL PASSAGE &/OR RESPIRATORY SYSTEM. CORROSIVE TO EYES. MAY CAUSE BURNS.

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Ecological Information =====

Ecological:AQUATIC TOXICITY: 7.00 MG/L DAPHNIA MAGNA; 7.40 MG/L GREEN ALGAE.

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

Waste Disposal Methods:WASTE DISPOSAL SHOULD BE IN ACCORDANCE WITH EXISTING FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

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

Transport Information:NOT REGULATED.

===== Regulatory Information =====
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SARA Title III Information:THIS PRODUCT CONTAINS A TOXIC CHEMICAL FOR ROUTINE ANNUAL CHEMICAL RELEASE REPORTING UNDER SECTION 313: CUMENE HYDROPEROXIDE CAS# 80-15-9 3%.

Federal Regulatory Information:ALL COMPONENTS ARE ON THE TSCA INVENTORY.

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

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