

NATIONAL STARCH & CHEMICAL COMPANY; PERMABOND -- PERMA-LOK (R) MM 115 P/N 78-4310 --  
8030-01-104-5392

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

Product ID:PERMA-LOK (R) MM 115 P/N 78-4310

MSDS Date:02/01/1993

FSC:8030

NIIN:01-104-5392

MSDS Number: BSHMR

=== Responsible Party ===

Company Name:NATIONAL STARCH & CHEMICAL COMPANY; PERMABOND

Address:FINDERNE AVE

Box:6500

City:BRIDGEWATER

State:NJ

ZIP:08807

C

Country:US

Info Phone Num:908-685-5000

Emergency Phone Num:908-685-5000

Preparer's Name:PHILIP A TOSCANO

CAGE:85091

=== Contractor Identification ===

Company Name:NATIONAL STARCH AND CHEMICAL CORP

Address:10 FINDERNE AVE

Box:6500

City:BRIDGEWATER

State:NJ

ZIP:08807

Country:US

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

CAGE:85091

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

Ingred Name:TETRAETHYLENE GLYCOL DIMETHACRYLATE

CAS:109-17-1

Fraction by Wt: >1%

Other REC Limits:NONE SPE

CIFIED

Ingred Name:HYDROXYETHYL METHACRYLATE (ORAL LD50 1250.0 MG/KG RAT)  
CAS:868-77-9  
RTECS #:OZ4725000  
Fraction by Wt: >1%  
Other REC Limits:MFR: 3.000 PPM

Ingred Name:CUMENE HYDROPEROXIDE (SARA III) (ORAL LD50 800 MG/KG RAT;  
DERMAL LD50 1.1 ML/KG RAT; INHAL LC50 700.0 PPM/HR RAT)  
CAS:80-15-9  
RTECS #:MX2450000  
Fraction by Wt: >1%  
Other REC Limits:NONE SPECIFIED  
EPA Rpt Qty:10 LBS  
DOT Rpt Qty:10 LBS

Ingred Name:VOC: 0.09 LBS/GAL (10 G/L)  
RTECS #:9999999VO  
Other REC Limits:NONE SPECIFIED

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

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:EYE: IRRITATING, INJURE TISSUE IF NOT  
REMOVED PROMPTLY. SKIN: FREQUENT OR PROLONGED CONTACT: IRRITATE,  
DERMATITIS. SENSITIZATION, DERMATITIC RASH. INHALATION:NOT  
RESPIRATORY HAZARD UNDER NORMAL CONDIT ION. IRRITATING/TOXIC VAPORS  
AT ELEVATED TEMPERATURES. INGESTION: NOT  
EVALUATED, ASSUMED TO  
CAUSE NAUSEA AND VOMITING.  
Effects of Overexposure:CHRONIC: IN CERTAIN INDIVIDUALS SENSITIZATION  
MAY OCCUR CAUSING DERMATITIS WITH EVEN MINIMAL CONTACT. DUE TO SKIN  
ABSORPTION WITH EXCESSIVE CONTACT, PRODUCT MAY PRODUCE NERVOUS  
SYSTEM EFFECTS, I.E., A TAXIA.  
TARGET ORGANS: SKIN, EYES.

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

First Aid:EYE:IMMED FLUSH W/WATER 15 MIN,LIFT EYELIDS. GET PROMPT MED  
AID. SKIN:FL

WASH W/ SOAP & WATER TILL CHEMICAL GONE. REMOVE CONTAMINATED CLOTHING, WASH BEFORE REUSE. INHALATION: FIRST AID NOT NORMALLY REQUIRED. REMOVE TO FRESH AIR. IF BREATHING DIFFICULT, GIVE OXYGEN; IF STOPPED, GIVE ARTIFICIAL RESPIRATION. GET MEDICAL AID. INGESTION: DON'T INDUCE VOMITING. IF CONSCIOUS GIVE MILK/WATER (NOTHING TO UNCONSCIOUS). KEEP WARM/QUIET. GET MEDICAL AID.

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

Flash Point Method: SCC

Flash Point: 230F, 110C

Extinguishing Media: CO2, DRY CHEMICAL, FOAM, WATER FOG

Fire Fighting Procedures: EQUIP FIRE FIGHTERS 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.

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

Spill Release Procedures: WEAR PROTECTIVE CLOTHING. STOP LEAK IF WITHOUT RISK. SMALL SPILL: TAKE UP WITH SAND, ETC. PLACE IN CONTAINERS (LATER

DISPOSAL).

LARGE SPILL: ABSORBED PRODUCT MAY POLYMERIZE (GENERATE HEAT & PRESSURE). VENTILATE CONTAINER TO PREVENT BUILDUP OF PRESSURE.

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

Handling and Storage Precautions: AVOID EXCESSIVE HEAT. STORE AT ROOM TEMPERATURE OUT OF DIRECT SUNLIGHT IN A DRY AREA. MAXIMUM STORAGE TEMPERATURE IS 100 F.

===== 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: PROTECTIVE GLOVES TO PREVENT CONTACT

Eye Protection: SAFETY GLASSES, GOGGLES, OR FACE SHIELD

Other Protective Equipment: NO SPECIAL CLOTHING REQUIRED FOR LOW VOLUME ACTIVITY. REMOVE CLOTHES, WASH BEFORE REUSE IF CONTAMINATED WITH PRODUCT.

Work Hygienic Practices: WASH HANDS WITH SOAP & WATER OR BEFORE EATING, DRINKING, SMOKING, OR USING TO

ILET FACILITIES.  
Supplemental Safety and Health

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

Vapor Pres:0.01 @ 77F

Vapor Density:1.01

Viscosity:1000 CPS

Evaporation Rate & Reference:NOT NOTED

Percent Volatiles by Volume: