

NATIONAL STARCH & CHEMICAL COMPANY; PERMABOND -- PERMA-LOK (R) MM 115 P/N 78-4310 --  
8030-01-014-5869

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

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

MSDS Date:02/01/1993

FSC:8030

NIIN:01-014-5869

MSDS Number: BSHLN

=== 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

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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 800.0 MG/KG  
RAT; DERMAL LD50 1.1 ML/KG RAT; INHAL LC50 700.0 PPM/6 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 SPECIF  
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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 IONS. 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: EYES AND SKIN.

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

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

H W/SOAP & WATER TILL CHEMICAL GONE. REMOVE CONTAM CLOTHING,WASH BEFORE REUSE. INHAL:FIRST AID NOT NORMALLY REQUIRED. REMOVE T O FRESH AIR. IF BREATHING DIFFICULT,GIVE OXYGEN;IF STOPPED,GIVE ARTIF RESP.GET MED AID. INGEST:DON'T INDUCE VOMITING. IF CONSCIOUS,GIVE MILK/WATER(NOTHING TO UNCONSCIOUS).KEEP WARM/QUIET. GET MED AID.

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===== 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.

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===== 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). VENT CONTAINER TO PREVENT BUILDUP OF PRESSURE.

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

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

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===== 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

NG TOILET 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: