

NATIONAL STARCH & CHEMICAL COMPANY; PERMABOND -- PERMA-LOK (R) ML 037 P/N 82-9883 --
8030-00-456-1038

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

Product ID:PERMA-LOK (R) ML 037 P/N 82-9883

MSDS Date:12/31/1991

FSC:8030

NIIN:00-456-1038

MSDS Number: BSHJY

=== Responsible Party ===

Company Name:NATIONAL STARCH & CHEMICAL COMPANY; PERMABOND

Address:FINDERNE AVE

Box:6500

City:BRIDGEWATER

State:NJ

ZIP:08807

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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:TETRAETHYLENEGLYCOL DIMETHACRYLATE

CAS:109-17-1

Fraction by Wt: >1%

Other REC Limits:NONE SPEC

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Ingred Name:HYDROXYETHYL METHACRYLATE (ORAL LD50 1250 MG/KG RAT)

CAS:868-77-9

RTECS #:OZ4725000

Fraction by Wt: >1%

Other REC Limits:NONE SPECIFIED

Ingred Name:CUMENE HYDROPEROXIDE (SARA III) (ORAL LD50 800 MG/KG RAT
83% SOLUTION;DERMAL LD50 1.13 RAT;INHAL LC50 700 PPM/6HR 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 SPECIFIE

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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/PROLONGED CONTACT: IRRITATE,
DERMATITIS. SKIN SENSITIZATION, DERMATITIC RASH. INHALATION: NOT
HAZARD UNDER NORMAL CONDITIONS. ING ESTION: NOT EVALUATED, ASSUMED
TO CAUSENAUSEA 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., ATAXIA. TARGET ORGANS: SKIN AND EYES.

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

First Aid:EYE:IMMED FLUSH W/WATER 15 MIN,LIFT EYELID. GET PROMPT MED
AID. SKIN: FLUSH W/SOAP & WATER TILL CHEMICAL REMOVED. REMOVE
CONTAM CLOTHES. WASH B

EFORE REUSE. INHAL:NOT NORMALLY REQ'D. REMOVE TO FRESH AI R. IF BREATH DIFFICULT, GIVE OXYGEN; IF STOPPED, GIVE ARTIF RESP. GET MED AID. INGEST:DON'T INDUCE VOMIT. IF CONSCIOUS, GIVE WATER/MILK (NOTHING TO UNCONSCIOUS). KEEP WARM & QUIET. GET PROMPT MED AID.

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

Flash Point Method:SCC

Flash Point:230F,110C

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

Fire Fighting Procedures:EQUIP FIRE FIGHTERS WITH SELF-CONTAINED

BREATHING APPARATUS TO PROTECT AGAINST POTENTIALLY TOXIC & 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 PROTECT CLOTHES. STOP LEAK IF WITHOUT RISK. SMALL SPILL: TAKE UP W/SAND, ETC. PLACE IN CONTAINER FOR LATER DISPOSAL. LARGE SPILL: ABSORBED MATERIAL MAY POLYMERIZE (GENERATE

HEAT & PRESSURE). VENT DISPOSAL 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 REQUIREMENTS FOR LOW VOLUME ACTIVITY. REMOVE CLOTHES, WASH BEFORE REUSE IF CONTAMINATED WITH PRODUCT

Work Hygienic Practices:WASH HANDS W/SOAP & WATER IF CONTACT W/PRODUCT OCCURS OR BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES.

Supplemental Safety a

nd Health

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

HCC:N1

Boiling Pt:B.P. Text:POLYMERIZES

Vapor Pres:0.01 @ 77F

Vapor Density:1.01

Spec Gravity:1.070 (WATER=1)

Evaporation Rate & Reference:NOT NOTED

Solubility in Water:INSOLUBLE

Appearance and Odor:YELLOW LIQUID; MILD, PLEASANT ODOR

Percent Volatiles by Volume: