

NATIONAL STARCH & CHEMICAL COMPANY; PERMABOND -- PERMA-LOK (R) HH 120 P/N 78-4309 --
8030-01-063-7510

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

Product ID:PERMA-LOK (R) HH 120 P/N 78-4309

MSDS Date:12/31/1991

FSC:8030

NIIN:01-063-7510

MSDS Number: BSHMG

=== 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: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
REMOVE PROMPTLY. SKIN: FREQUENT/PROLONGED CONTACT: IRRITATE,
DERMATITIS. SENSITIZATION, DERMATITIC RASH. INHALATION: NOT
HAZARDOUS UNDER NORMAL CONDITIONS. IRRITATING/TOXIC VAPORS
RELEASED 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., ATAXIA.

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:FLU

SH W/SOAP & WATER TILL CHEMICAL REMOVED.REMOVE CONTAM CLOTHES & WASH BEFORE REUSE. INHAL:AID NOT NORMALLY REQ'D. REMOVE TO FRESH AIR. IF BREATH DIFFICULT,GIVE OXYGEN;IF STOPPED,GIVE ARTIF RESP.GET MED AID. INGEST:DON'T INDUCE VOMITING. IF CONSCIOUS,GIVE (NOTHING TO UNCONSCIOUS) MILK/WATER.KEEP WARM & QUIET. GET PROMPT MED AID.

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

Flash Point Method:SCC

Flash Point:230F,110C

Extinguishing Media:CO2, DRY CHEMI
AL, 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 CLOTHES. STOP LEAK IF W/OUT RISK. SMALL: TAKE UP W/SAND, ETC. PLACE IN CONTAINER.

LARGE:

ABSORBED INERTA MATERIAL MAY POLYMERIZE (GENERATE HEAT & PRESSURE). VENT CONTAINER TO PREVENT B UILDUP 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 100F.

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

Respiratory Protection:NONE REQUIRED UNDER NORMAL HANDLING CONDIT IONS.

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 CLOTHING & LAUNDRER BEFORE REUSE IF CONTAMINATED W/PRODUCT.

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

ILET
FACILITIES.
Supplemental Safety and Health

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

Boiling Pt:B.P. Text:POLYMERIZES
Vapor Pres:0.01 @ 77F
Vapor Density:1.01
Spec Gravity:1.070 (WATER=1)
Viscosity:7000 CPS
Evaporation Rate & Reference:NOT NOTED
Solubility in Water:INSOLUBLE
Appearance and Odor:RED LIQUID; MILD PLEASANT ODOR
Percent Volatiles by Volume: