

SECTION I - GENERAL INFORMATION

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 CHEMICAL NAME & SYNONYMS: N/A TRADE NAME & SYNONYMS: M/M FIX ALL  
 -----  
 CHEMICAL FAMILY: ADHESIVE-SOLVENT BASED FORMULA: X <--MIXTURE  
 -----  
 MANUFACTURE'S NAME: CHEMSEARCH DIV. OF NCH CORP.  
 ADDRESS (NUMBER, STREET, CITY, STATE & ZIP CODE):  
 BOX 152170 IRVING, TX 75015  
 -----  
 PREPARED BY: K RAHN/CHEMIST PRODUCT CODE NUMBER: 5891 EMERGENCY TELEPHONE NUMBER: 972-438-1381  
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SECTION II - HAZARDOUS INGREDIENTS

THE HAZARDS PRESENTED BELOW ARE THOSE OF THE INDIVIDUAL COMPONENTS

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 CHEMICAL NAME (INGREDIENTS): PERCHLOROETHYLENE  
 HAZARD: >1 CARC 4,5. TLV---->50PPM 1. PEL---->25PPM 2.  
 STEL(TWA)\*->NA CAS#-->127-18-4  
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SECTION IIA - NON-HAZARDOUS INGREDIENTS  
 NON-HAZARDOUS INGREDIENT NAMES AND CAS NUMBERS ARE PROTECTED UNDER NJ TRADE  
 SECRET REGISTRY # 409363-5506P  
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SECTION III - PHYSICAL DATA

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 BOILING PT. (F) | 250 | SPEC. GRAVITY (H2O=1) | 1.3  
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 VAPOR PR. (MM HG) | N/A | COLOR | COLORLESS  
 VAPOR DENSITY | >1 | ODDR | ETHER LIKE  
 PH. @ 100% | N/A | CLARITY | CLEAR  
 % VOLATILE BY VOL | 67 | EVAPORATION RATE (BU A/C = 1) | N/A  
 -----  
 H2O SOLUBILITY | INSOLUBLE  
 VISCOSITY | VISCOUS  
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SECTION IV - FIRE AND EXPLOSION HAZARD

FLASH POINT: NON-FLAM FLAMMABLE LIMITS | N/A LEL | N/A UEL  
T.C.C.
 EXTINGUISHING MEDIA "ALCOHOL" DRY WATER  
 X <--FOAM <--FOAM X <--CO2 X <--CHEMICAL X <--SPRAY <--OTHER  
 -----  
 SPECIAL FIRE FIGHTING PROCEDURES  
 CHOOSE EXTINGUISHING MEDIA BASED ON NATURE OF SURROUNDING FIRE.  
 FIREFIGHTERS SHOULD WEAR SELF-CONTAINED, POSITIVE-PRESSURE BREATHING  
 APPARATUS. AVOID SKIN CONTACT.  
 -----  
 UNUSUAL FIRE AND EXPLOSION HAZARDS  
 EXPOSURE TO FLAMES OR OTHER HEAT SOURCES WILL RESULT IN THERMAL  
 DECOMPOSITION FORMING TOXIC GASES, HYDROGEN CHLORIDE, PHOSGENE, OR CHLORINE  
 -----  
 NFPA HAZARD RATING (0=INSIGNIFICANT;1=SLIGHT;2=MODERATE;3=HIGH;4=EXTREME):  
 2 <--HEALTH 0 <--FLAMMABILITY 0 <--REACTIVITY <--SPECIAL  
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SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE:  
 NOT ESTABLISHED FOR MIXTURE(SEE SECTION II).  
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(CONTINUED) - SECTION V - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE :

- ACUTE - (SHORT TERM EXPOSURE)  
 INHALATION: 100 PPM 7 HRS MILD IRRITATION TO EYES, NOSE, AND THROAT;  
 FLUSHING OF FACE AND NECK; HEADACHE, SLURRED SPEECH, AND DROWSINESS;  
 200 PPM FOR 1 HOUR CAUSES THE SAME SYMPTOMS PLUS DIZZINESS AND LIGHT-  
 HEADEDNESS. 600 PPM FOR 10 MINUTES CAUSES SENSATION OF NUMBNESS AROUND  
 MOUTH, DIZZINESS, AND INCOORDINATION; 2,000 PPM CAUSES MILD NARCOSIS WITH-  
 IN 5 MINUTES. 5,000 PPM CANNOT GENERALLY BE TOLERATED AND CAUSES VERTIGO,  
 NAUSEA, AND MENTAL CONFUSION. UNCONSCIOUSNESS OR DEATH CAN OCCUR AT EXTREME  
 LY HIGH CONCENTRATIONS OR ON PROLONGED EXPOSURES ABOVE 500 PPM. SKIN:  
 PROLONGED OR REPEATED CONTACT OF LIQUID CAN CAUSE IRRITATION, DEFATTING OF  
 SKIN, AND DERMATITIS. PROLONGED SINGLE EXPOSURE CAN RESULT IN PROGRESSIVELY  
 SEVERE BURNING SENSATION AND REDNESS. ABSORPTION THROUGH INTACT SKIN IS  
 POSSIBLE IF CONTACT WITH LIQUID IS PROLONGED.  
 EYES: LIQUID IN EYES PRODUCES PAIN AND IRRITATION WITH MILD TEMPORARY  
 DAMAGE POSSIBLE. VAPOR CAN IRRITATE EYES.  
 INGESTION: SINGLE DOSE TOXICITY IS MODERATE AND CAUSES SEVERE GASTRO-  
 INTESTINAL IRRITATION WITH NAUSEA, VOMITING, STOMACH CRAMPS, AND DIARRHEA  
 LIKELY. IF VOMITING OCCURS, PERCHLOROETHYLENE CAN BE ASPIRATED INTO LUNGS,  
 WHICH CAN CAUSE CHEMICAL PNEUMONIA AND SYSTEMIC EFFECTS.

- CHRONIC - (LONG TERM EXPOSURE)  
 OVEREXPOSURE SHOULD BE AVOIDED. FAILURE TO DO SO MAY RESULT IN INJURY,  
 ILLNESS, OR EVEN DEATH.  
 TARGET ORGANS: LIVER, KIDNEY, SKIN, EYES AND RESPIRATORY TRACT.

PRIMARY ROUTE OF ENTRY: X<-- INHALATION <-- INGESTION X<-- ABSORPTION

EMERGENCY & FIRST AID PROCEDURES

INHALATION :  
 REMOVE TO FRESH AIR. IF BREATHING HAS STOPPED, ADMINISTER ARTIFICIAL  
 RESPIRATION. SEEK MEDICAL ATTENTION IF RESPIRATORY IRRITATION PERSISTS  
 OR BREATHING BECOMES DIFFICULT.

EYE CONTACT:  
 FLUSH EYES IMMEDIATELY WITH WATER FOR AT LEAST 15 MINUTES HOLDING EYELIDS  
 OPEN, OCCASIONALLY TO ENSURE RINSING. SEEK MEDICAL ATTENTION IF IRRITATION  
 PERSISTS.

SKIN CONTACT:  
 REMOVE CONTAMINATED CLOTHING AND SHOES. WASH SKIN WITH SOAP AND WATER FOR

(CONTINUED) - (CONTINUED) - SECTION V - HEALTH HAZARD DATA

FIFTEEN MINUTES. WASH CONTAMINATED CLOTHING BEFORE REUSE. SEEK MEDICAL  
 ATTENTION IF IRRITATION PERSISTS.

INGESTION :  
 DO NOT INDUCE VOMITING. CONTACT PHYSICIAN OR EMERGENCY MEDICAL FACILITY  
 IMMEDIATELY. GIVE 3-4 GLASSES OF WATER TO DILUTE STOMACH CONTENTS.  
 IF VOMITING OCCURS, GIVE LIQUIDS AGAIN.

NOTES TO PHYSICIAN :  
 ADRENALINE SHOULD NEVER BE GIVEN TO PERSONS OVEREXPOSED TO THIS PRODUCT.  
 GASTRIC LAVAGE MAY BE EFFECTIVE WITHIN FOUR HOURS OF INGESTION.

SECTION VI - TOXICITY INFORMATION

PRODUCT CONTAINS CHEMICAL LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN BY:

IARC	X<--YES	NTP	X<--YES	OSHA	<--YES	ACGIH	X<--YES	OTHER	<--YES
	<--NO	NTP	<--NO	OSHA	X<--NO	ACGIH	<--NO	OTHER	X<--NO

PERCHLOROETHYLENE

IHL-RAT LCD: 4000 PPM/ 4HR	3.	ORL-MUS LD50: 8100 MG/KG	3.
ORL-RAT LD50: 8550 MG/KG	3.	EYE-RBT 162 MG MLD	3.
SKN-RBT: 810 MG/24 H SEV.	3.		
ORL-MUS CARC: 536MG/KG/D/78W	6.		

AN INCREASED INCIDENCE OF MONONUCLEAR CELL LEUKEMIA WAS SEEN IN RATS  
 INHALING 200 TO 400 PPM OF PERCHLOROETHYLENE FOR 2 YEARS. 7.  
 PERCHLOROETHYLENE HAS CAUSED LIVER AND KIDNEY TOXIC EFFECTS IN CHRONICALLY  
 OVER-EXPOSED EXPERIMENTAL ANIMALS. RESULTS FROM ANIMAL STUDIES INDICATE A  
 POSSIBLE HUMAN CARCINOGENIC RISK. 4.  
 RISK OF CANCER DEPENDS ON DURATION AND LEVEL OF EXPOSURE.

SECTION VII - REACTIVITY DATA

STABILITY	X <--STABLE	<--UNSTABLE	CONDITIONS TO AVOID
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AVOID CONTACT WITH OPEN FLAME, ELECTRIC ARCS OR OTHER HOT  
 SURFACES WHICH CAN CAUSE THERMAL DECOMPOSITION.

INCOMPATIBILITY (MATERIALS TO AVOID)  
 STRONG OXIDIZERS, CAUSTIC SODA OR POTASH.

(CONTINUED) - SECTION VII - REACTIVITY DATA

HAZARDOUS DECOMPOSITION PRODUCTS  
HYDROGEN CHLORIDE, PHOSGENE, CHLORINE AND OXIDES OF CARBON.

HAZARDOUS POLYMERIZATION	WILL NOT OCCUR	MAY OCCUR	CONDITIONS TO AVOID
X			NONE

SECTION VIII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:  
EVACUATE AREA, VENTILATE, AVOID BREATHING VAPORS, DIKE, CONTAIN SPILL, CLEAN AREA (USE PROTECTIVE EQUIP./SEC. VII) BY MOPPING OR WITH ABSORBANT MATERIAL, TRANSFER TO CLOSED CONTAINERS FOR DISPOSAL. AVOID CONTAMINATION OF GROUND/SURFACE WATERS. DO NOT FLUSH TO SEWER. IF SPILL INDOORS, TURN OFF HEAT/AIR CONDITION SYSTEMS TO PREVENT VAPORS FROM CONTAMINATING BUILDING.

WASTE DISPOSAL METHOD(S):  
DISPOSE OF IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL POLLUTION REGULATIONS.

NEUTRALIZING AGENT :  
NONE.

SECTION IX - SPECIAL PROTECTION INFORMATION

REQUIRED VENTILATION :

DO NOT USE IN CLOSED OR CONFINED SPACE. OPEN DOORS AND/OR WINDOWS. USE VENTILATION TO MAINTAIN EXPOSURE LEVELS BELOW 25 PPM (TWA-OSHA).

(CONTINUED) - SECTION IX - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION :  
WHERE VAPOR CONCENTRATION EXCEEDS OR IS LIKELY TO EXCEED 25PPM, A NIOSH/MSHA APPROVED ORGANIC VAPOR TYPE HALF-MASK RESPIRATOR IS ACCEPTABLE. A NIOSH/MSHA APPROVED SELF-CONTAINED BREATHING APPARATUS OR AIR LINE RESPIRATOR WITH FULL FACE PIECE IS REQUIRED FOR VAPOR CONCENTRATIONS ABOVE 250PPM AND FOR SPILLS AND/OR EMERGENCIES. FOLLOW ANY APPLICABLE RESPIRATOR-USE STANDARD OR REGULATIONS.

GLOVE PROTECTION :  
SOLVENT-RESISTANT GLOVES (NEOPRENE-LATEX)

EYE PROTECTION :  
SAFETY GLASSES. CHEMICAL GOGGLES OR FACE SHIELDS WHERE SPLASHING IS POSSIBLE. DO NOT WEAR CONTACTS

OTHER PROTECTION :  
SHOULD BE USED WHEN NECESSARY TO PREVENT SKIN CONTACT.

SECTION X - STORAGE AND HANDLING INFORMATION

STORAGE TEMPERATURE	INDOOR	HEATED	REFRIGERATED	OUTDOOR
MAX: 100 F. MIN:	O F. X			

PRECAUTIONS TO BE TAKEN IN HANDLING & STORING  
STORE IN LABELED, TIGHTLY SEALED CONTAINERS IN A COOL, DRY, WELL-VENTILATED AREA.

OTHER PRECAUTIONS  
VAPORS ARE HEAVIER THAN AIR AND WILL COLLECT IN LOW AREAS.  
KEEP OUT REACH OF CHILDREN.  
READ ENTIRE LABEL BEFORE USING.  
USE ONLY WITH ADEQUATE VENTILATION.

## (CONTINUED) - SECTION X - STORAGE AND HANDLING INFORMATION

## SECTION XI - REGULATORY INFORMATION

CHEMICAL NAME	C.A.S NUMBER	UPPER % LIMIT
PERCHLOROETHYLENE	127-18-4	67

THOSE INGREDIENTS LISTED ABOVE ARE SUBJECT TO THE REPORTING REQUIREMENTS OF 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 AND 40 CFR PART 372.

IF USE (USE EXEMPTION) APPEARS UNDER UPPER % LIMIT, END USERS ARE EXEMPT FROM NOTIFICATION BECAUSE THE PRODUCT IS USED AND LABELED FOR ROUTINE JANITORIAL WORK, OR THE PRODUCT IS USED AND LABELED FOR FACILITY GROUNDS MAINTENANCE (SUCH AS FERTILIZERS AND HERBICIDES), OR THE PRODUCT IS USED AND LABELED FOR MAINTAINING MOTOR VEHICLES.

## CALIFORNIA PROPOSITION 65

WARNING: THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE (1)CANCER OR (2)BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM:  
Perchloroethylene (1).

## SECTION XII - TRANSPORTATION \* (FOR FUTURE USE)

LABELS	LIMITED QTY
UNIT CONTAINER	
DOT SPS CONTAINER	NET EXPLOSIVE WT.
AEROSOL PROPELLANT(S)	

## SECTION XIII - REFERENCES

1. THRESHOLD LIMIT VALUES FOR CHEMICAL SUBSTANCES, ACGIH, 1991-1992.
2. OSHA, PEL, 3. DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS, 7TH ED., N. IRVING SAX AND RICHARD J. LEWIS, SR.
4. INTERNATIONAL AGENCY FOR RESEARCH ON CANCER, MONOGRAPHS, 1987.
5. FIFTH ANNUAL REPORT ON CARCINOGENS, 1989, NATIONAL TOXICOLOGY PROGRAM.
6. REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES, 1985-1986 EDITION.
7. PROCTOR ET AL, 1988.

\* SHORT TERM EXPOSURE LIMIT (TWA) LISTED AS FINAL RULE LIMITS PUBLISHED IN THE FEDERAL REGISTER/VOL. 54 NO. 12, 1-19-89

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