

MATERIAL SAFETY DATA SHEET: AEROLEX PLUS AEROSOL PAGE : 1  
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SECTION I - GENERAL INFORMATION

CHEMICAL NAME & SYNONYMS N/A	TRADE NAME & SYNONYMS AEROLEX PLUS AEROSOL
CHEMICAL FAMILY : ALCOHOL MIXTURE	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: B MALKEY/CHEMIST	PRODUCT CODE NUMBER 5438
	EMERGENCY TELEPHONE NUMBER 972-438-1381

SECTION II - HAZARDOUS INGREDIENTS

THE HAZARDS PRESENTED BELOW ARE THOSE OF THE INDIVIDUAL COMPONENTS

CHEMICAL NAME (INGREDIENTS) :			
ISOPROPANOL	HAZARD-->FLAM/IRR STEL(TWA)*->500PPM	TLV-->400PPM 1. CAS#-->67-63-0	PEL-->400PPM 2.
PROPANE	HAZARD-->FLAMMABLE STEL(TWA)*->NOT EST.	TLV-->NOT EST. 1 CAS#-->74-98-6	PEL-->NOT EST. 2
ISOBUTANE	HAZARD-->FLAMMABLE STEL(TWA)*->NOT EST.	TLV-->NOT EST. 1 CAS#-->75-28-5	PEL-->NOT EST. 2
N-BUTANE	HAZARD-->FLAMMABLE STEL(TWA)*->NOT EST.	TLV-->NOT EST. 1 CAS#-->106-97-8	PEL-->NOT EST. 2

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SECTION III - PHYSICAL DATA

BOILING PT. (F)	180	SPEC. GRAVITY (H <sub>2</sub> O=1)	0.817
VAPOR PR. (MM HG)	33	COLOR	GRAY
VAPOR DENSITY	2.07	ODOR	ALCOHOL
PH. @ 100%	N/A	CLARITY	OPAQUE
% VOLATILE BY VOL	94	EVAPORATION RATE ( BU A/C = 1 )	2.88
H <sub>2</sub> O SOLUBILITY	NEGLIGIBLE		
VISCOSITY	NON-VISCOUS		

SECTION IV - FIRE AND EXPLOSION HAZARD

FLASH POINT: 47°F. SETAFLASH	FLAMMABLE LIMITS ISOPROPANOL	LEL 2.0	UEL 12.7
EXTINQUISHING MEDIA "ALCOHOL" X <--FOAM	DRY X <--CO <sub>2</sub>	WATER X <--CHEMICAL	<--SPRAY
<--OTHER			

SPECIAL FIRE FIGHTING PROCEDURES  
FIREFIGHTERS SHOULD WEAR A SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE GEAR.

UNUSUAL FIRE AND EXPLOSION HAZARDS  
VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL TO DISTANT SOURCES OF IGNITION AND FLASHBACK. USE WATER TO COOL FIRE EXPOSED CONTAINERS TO PREVENT BURSTING. FLAME EXTENSION = >36 INCHES. BURNBACK = 6 INCHES.

NFPA HAZARD RATING (0=INSIGNIFICANT;1=SLIGHT;2=Moderate;3=HIGH;4=EXTREME):  
2 <--HEALTH 3 <--FLAMMABILITY 0 <--REACTIVITY <--SPECIAL

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE:

NOT ESTABLISHED FOR MIXTURE. SEE SECTION II.

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

## EFFECTS OF OVEREXPOSURE :

- ACUTE - (SHORT TERM EXPOSURE)  
 EYE CONTACT: CAUSES IRRITATION SEEN AS ITCHING, REDNESS, BLURRED VISION  
 AND A BURNING SENSATION.  
 SKIN CONTACT: MAY CAUSE IRRITATION SEEN AS ITCHING, REDNESS AND PROLONGED  
 CONTACT CAN CAUSE DERMATITIS. THE PRODUCT MAY BE ABSORBED THROUGH THE SKIN  
 BUT HARMFUL EFFECTS ARE NOT EXPECTED.  
 INHALATION: MAY CAUSE HEADACHE, DIZZINESS AND NAUSEA. EXCESSIVE  
 INHALATION OF VAPORS MAY CAUSE IRRITATION TO THE EYES, NOSE AND THROAT WITH  
 POSSIBLE IMPAIRED COORDINATION, CONFUSION AND CENTRAL NERVOUS SYSTEM  
 DEPRESSION.  
 INGESTION: MAY CAUSE GASTROINTESTINAL IRRITATION SEEN AS NAUSEA, VOMITING  
 AND DIARRHEA. LARGE AMOUNTS MAY CAUSE IMPAIRED COORDINATION AND  
 CENTRAL NERVOUS SYSTEM DEPRESSION SEEN AS FATIGUE, HEADACHE OR  
 UNCONSCIOUSNESS, LOW BLOOD PRESSURE AND REVERSIBLE LIVER EFFECTS AND  
 KIDNEY DAMAGE.

## - CHRONIC - (LONG TERM EXPOSURE)

NO CHRONIC DATA AVAILABLE.  
 MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE ARE PRE-EXISTING RESPIRATORY  
 AND SKIN CONDITIONS SUCH AS ASTHMA, EMPHYSEMA AND DERMATITIS.  
 TARGET ORGANS: LIVER, KIDNEY, CENTRAL NERVOUS SYSTEM, HEART, SPLEEN AND  
 LUNGS.

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

## EMERGENCY &amp; FIRST AID PROCEDURES

INHALATION:  
 REMOVE FROM THE AREA TO FRESH AIR. SEEK MEDICAL ATTENTION IF RESPIRATORY  
 IRRITATION DEVELOPS OR IF BREATHING BECOMES DIFFICULT.

EYE CONTACT:  
 RINSE THE EYES WITH WATER. REMOVE ANY CONTACT LENSES AND CONTINUE FLUSHING  
 WITH PLENTY OF WATER FOR SEVERAL MINUTES. SEEK MEDICAL ATTENTION IF  
 IRRITATION DEVELOPS.

Skin Contact:  
 WASH AFFECTED AREAS WITH PLENTY OF SOAP AND WATER FOR SEVERAL MINUTES.  
 SEEK MEDICAL ATTENTION IF IRRITATION DEVELOPS.

INGESTION:  
 GIVE 3 TO 4 GLASSES OF WATER, BUT DO NOT INDUCE VOMITING. IF VOMITING

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

OCCURS, GIVE FLUIDS AGAIN. SEEK MEDICAL ATTENTION IF DISCOMFORT OCCURS.

NOTES TO PHYSICIAN:  
 THERE IS NO SPECIFIC ANTIDOTE. TREAT THE PATIENT SYMPTOMATICALLY.

## SECTION VI - TOXICITY INFORMATION

PRODUCT CONTAINS CHEMICAL LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN BY:

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

## ISOPROPANOL

SKN-RBT 500MG MLD 3.  
 EYE-RBT 10MG MOD 3.  
 IHL-MUS LCLO: 1280OPPM/3H 3.  
 ORL-RAT LD50: 5800MG/KG 4.

## PROPANE

NO TOXICITY DATA AVAILABLE.

## ISOBUTANE

NO TOXICITY DATA AVAILABLE.

## N-BUTANE

IHL-RAT LD50: 658 G/M3/4H 3.  
 IHL-MUS LC50: 680 G/M3/2H 3.

## SECTION VII - REACTIVITY DATA

STABILITY	X <--STABLE <--UNSTABLE	CONDITIONS TO AVOID
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AVOID HEAT, HOT SURFACES, SPARKS AND OPEN FLAMES.

INCOMPATABILITY (MATERIALS TO AVOID):  
 OXIDIZING AGENTS SUCH AS CHLORINE BLEACH AND HYDROGEN PEROXIDE,  
 AND ACIDS, ACETALDEHYDE AND ISOCYANATE.

HAZARDOUS DECOMPOSITION PRODUCTS  
 OXIDES OF CARBON.

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HAZARDOUS POLYMERIZATION	X <-- OCCUR	<-- MAY OCCUR	CONDITIONS TO AVOID
N/A			

SECTION VIII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:  
DUE TO THE NATURE OF THE AEROSOL PACKAGING, A LARGE SPILL IS UNLIKELY. FOR  
A SMALL SPILL, ABSORB WITH AN INERT MATERIAL AND TRANSFER ALL MATERIAL  
INTO A PROPERLY LABELED CONTAINER FOR DISPOSAL. WEAR APPROPRIATE PROTECTIVE  
CLOTHING.

WASTE DISPOSAL METHOD(S):  
DISPOSE OF IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS.  
TYPICAL DISPOSAL IS TO WRAP THE EMPTY AEROSOL CONTAINER IN SEVERAL LAYERS  
OF NEWSPAPER AND DISPOSE OF IN THE TRASH.

NEUTRALIZING AGENT :  
NONE KNOWN.

SECTION IX - SPECIAL PROTECTION INFORMATION

REQUIRED VENTILATION :  
GENERAL VENTILATION IS NORMALLY ADEQUATE.

RESPIRATORY PROTECTION :  
NONE REQUIRED UNDER NORMAL CONDITIONS OF USE.  
A NIOSH/MSHA APPROVED RESPIRATOR IN POORLY VENTILATED AREAS OR WHERE  
MISTING EXISTS.

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GLOVE PROTECTION :  
NEOPRENE RUBBER GLOVES IF REPEATED OR PROLONGED  
CONTACT IS LIKELY.

EYE PROTECTION :  
SAFETY GLASSES WITH SIDE SHIELDS IF THE METHOD OF  
USE PRESENTS THE LIKELIHOOD OF EYE CONTACT.

OTHER PROTECTION :  
NONE UNDER NORMAL CONDITIONS OF USE.

SECTION X - STORAGE AND HANDLING INFORMATION

STORAGE TEMPERATURE	INDOOR	HEATED	REFRIGERATED	OUTDOOR
MAX: 120°F. MIN: 0°F.	X			

PRECAUTIONS TO BE TAKEN IN HANDLING & STORING  
AVOID HEAT, HOT SURFACES, SPARKS OR OPEN FLAME.  
WASH THOROUGHLY AFTER HANDLING. USE ONLY WITH  
ADEQUATE VENTILATION.

OTHER PRECAUTIONS  
KEEP OUT OF REACH OF CHILDREN. READ THE ENTIRE  
LABEL BEFORE USING THE PRODUCT. FOLLOW THE LABEL  
DIRECTIONS.

SECTION XI - REGULATORY INFORMATION

CHEMICAL NAME	C.A.S NUMBER	UPPER % LIMIT
N/A		

THOSE INGREDIENTS LISTED ABOVE ARE SUBJECT TO THE REPORTING REQUIREMENTS OF

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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:  
NONE.

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 AND PHYSICAL AGENTS AND BIOLOGICAL EXPOSURE INDICES, ACGIH, 1996-1997.
  2. OSHA PEL.
  3. SAX'S DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS, EIGHTH EDITION, RICHARD J. LEWIS, SR.
  4. VENDOR'S MSDS.
- IRR:IRRITANT, FLAM:FLAMMABLE, COMB:COMBUSTIBLE, CORR:CORROSIVE,  
CARC:CARCINOGENIC, TOX:TOXIC, N/A:NOT APPLICABLE, N/E:NOT ESTABLISHED,  
COG:CLEVELAND OPEN CUP, PMCC:PENSKY-MARTIN CLOSED CUP, TCC:TAGLIABUE CLOSED  
CUP, LEL:LOWER EXPLOSION LIMIT, UEL:UPPER EXPLOSION LIMIT, NFPA:NATIONAL  
FIRE PROTECTION ASSOCIATION, IARC:INTERNATIONAL AGENCY FOR THE RESEARCH ON

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CANCER, NTP:NATIONAL TOXICOLOGY PROGRAM, OSHA:OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION, ACGIH:AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS, TLV:THRESHOLD LIMIT VALUE, PEL:PERMISSIBLE EXPOSURE LEVEL, STEL:SHORT TERM EXPOSURE LIMIT, MLD:MILD, MOD:MODERATE, SEV:SEVERE,

\* 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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