MATERIAL SAFETY DATA SHEET: SS-80 PLUS AERO

(000000-000000- -5606)

DATE OF ISSUE 3/16/1999

SUPERSEDES 1/05/1999

SECTION I - GENERAL INFORMATION

Chemical Name & Synonyms
N/A

Trade Name & Synonyms
SS-80 PLUS AERO

Chemical Family:
CHLORINATED SOLVENT

Formula Mixture --> X

Manufacturer's Name:
CHEMSEARCH DIV. OF NCH CORP.

Address:
BOX 152170
IRVING, TX 75015

Prepared By:
L BOYNTON/CHEMIST

Product Code Number
5606

Emergency Phone Number
800-424-9300

SECTION II - HAZARDOUS INGREDIENTS
THE HAZARDS PRESENTED BELOW ARE THOSE OF THE INDIVIDUAL COMPONENTS

Chemical Name (Ingredients)	Hazard	TLV		PEL		STEL	CAS #
METHYLENE CHLORIDE	***	50 PPM	1	25 PPM	2	N/E	75-09-2
PERCHLOROETHYLENE	***	50 PPM	1	25 PPM	2	N/E	127-18-4
CARBON DIOXIDE	ASPHYX.	5000PPM	1	10000PPM	2	30000PPM	124-38-9

***IRR/CAR 7,8.

SECTION III - PHYSICAL DATA

Boiling Point (F):	108°F	Specific Gravity (H20=1):	1.45
Vapor Pressure (MM HG):	235.5	Color:	COLORLESS-LT. STRAW
Vapor Density (Air=1):	3.0	Odor:	CHLORINATED
PH @ 100% :	N/A	Clarity:	TRANSPARENT
% Volatile by Volume:	100	Evaporation Rate (BU A/C=1):	20.4
Solubility:	NIL	Viscosity:	NON-VISCOUS

SECTION IV - FIRE AND EXPLOSION HAZARD

Flash Point
NON-FLAM / SETAFLASH

Flammable Limits	LEL	UEL
METHYLENE CHLORIDE	14%	22%

Extinguishing Media
X <--Foam X <--Alcohol Foam X <--CO2 X <--Dry Chemical <--Water Spray <--Other

Special Fire Fighting Procedures:
FIREFIGHTERS SHOULD WEAR A SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE GEAR. SPRAY FIRE EXPOSED CONTAINERS TO PREVENT BURSTING.

Unusual Fire and Explosion Hazards:
PHOSGENE CAN BE FORMED AT TEMPERATURES ABOVE 1000°F. ADITIONALLY, IF THE VAPORS ARE ALLOWED TO COLLECT AT THE CONCENTRATIONS LISTED ABOVE, & EXPOSED TO AN IGNITION SOURCE, AN EXPLOSION COULD POTENTIALLY RESULT.

Aerosol Level (NFPA 30B): 1

NFPA 704 Hazard Rating (0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme)
2 <--Health 1 <--Flammability 0 <--Instability <--Special

SECTION V - HEALTH HAZARD DATA

Threshold Limit Value:
NOT ESTABLISHED FOR MIXTURE. SEE SECTION II.

Effects of Overexposure:

-Acute (Short Term Exposure)

EYE CONTACT: VAPORS MAY CAUSE IRRITATION SEEN AS ITCHING AND REDNESS. LIQUID CAUSES IRRITATION WITH POSSIBLE TRANSIENT CORNEAL INJURY OR PAIN. SKIN CONTACT: CAUSES IRRITATION SEEN AS REDNESS AND ITCHING. REPEATED OR PROLONGED EXPOSURE MAY CAUSE DEFATTING OF THE SKIN AND DERMATITIS. ABSORPTION OF LIQUID THROUGH INTACT SKIN IS POSSIBLE WITH PROLONGED CONTACT. PROLONGED CONTACT WITH THE LIQUID MAY CAUSE FROSTBITE AND BLISTERING. LIQUID MAY CAUSE SEVERE IRRITATION IF CONFINED TO THE SKIN BY GLOVES. INHALATION: AT LOW LEVELS (200 PPM) INITIAL SYMPTOMS MAY INCLUDE NAUSEA, HEADACHE, DIZZINESS, LOSS OF CONCENTRATION AND IRRITATION. AT HIGH CONCEN- TRATIONS: NUMBNESS, TINGLING IN THE ARMS AND LEGS, VOMITING, INCOORDINATION DRUNKENNESS AND RAPID HEARTBEAT CAN OCCUR. AT LEVELS 1000PPM, LOSS OF CONSCIOUSNESS AND DEATH CAN OCCUR. CONSUMPTION OF ALCOHOL BEFORE OR AFTER EXPOSURE MAY INCREASE INTENSITY OF THE ADVERSE EFFECTS. AS THIS PRODUCT CONTAINS CARBON DIOXIDE, OVEREXPOSURE WILL CAUSE DISPLACEMENT OF AIR AND CAUSE ASPHYXIATION IN CONFINED SPACES. OVEREXPOSURE TO CARBON DIOXIDE CAUSES THE FORMATION OF CARBONIC ACID WHICH CAN LEAD TO NOSE AND THROAT IRRITATION AND WATERY EYES. HIGHER LEVELS OF CARBON DIOXIDE EXPOSURE CAUSES A FAINT ACID TASTE AND CAN CAUSE PARALYSIS OF THE BREATHING CONTROL CENTERS OF THE NERVOUS SYSTEM. INGESTION: INGESTION OF LARGE AMOUNTS MAY CAUSE NAUSEA, VOMITING, STOMACH CRAMPS AND DIARRHEA. INGESTION AND SUBSEQUENT VOMITING OF THIS PRODUCT CAN LEAD TO ASPIRATION OF THE PRODUCT INTO THE LUNGS WHICH CAN CAUSE DAMAGE AND CAN BE FATAL.

-Chronic (Long Term Exposure)

LONG TERM EXCESSIVE SKIN OR INHALATION EXPOSURE TO PERCHLOROETHYLENE OR METHYLENE CHLORIDE HAS CAUSED CANCER IN LABORATORY ANIMALS AND BEEN DETERMINED TO BE A HUMAN CANCER RISK. REPEATED OR PROLONGED EXPOSURE MAY CAUSE ELEVATION OF THE CARBOXYHEMOGLOBIN LEVELS. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: PRE-EXISTING LIVER, KIDNEY, LUNG, CORONARY, SKIN, AND RESPIRATORY DISEASES, ANEMIA, AND ALCOHOLISM. TARGET ORGANS: LIVER, KIDNEYS, CENTRAL NERVOUS SYSTEM, LIVER, AND HEART

SECTION V - HEALTH HAZARD DATA (Continued)

Primary Routes of Entry: X <--Inhalation <--Ingestion X <--Absorption

Emergency and First Aid Procedures:

-Inhalation:
REMOVE FROM THE AREA TO FRESH AIR. IF NOT BREATHING, CLEAR THE AIRWAY AND START MOUTH TO MOUTH ARTIFICIAL RESPIRATION. GET IMMEDIATE MEDICAL ATTENTION.

-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 LARGE AMOUNTS OF SOAP AND WATER FOR 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND SHOES. SEEK MEDICAL ATTENTION IF IRRITATION PERSISTS. WASH CLOTHING AND CLEAN SHOES BEFORE REUSE.

-Ingestion:
GIVE 3 TO 4 GLASSES OF WATER, BUT DO NOT INDUCE VOMITING. IF VOMITING OCCURS, GIVE FLUIDS AGAIN. GET IMMEDIATE MEDICAL ATTENTION.

-Notes to Physician:
DANGER OF ASPIRATION MUST BE WEIGHED AGAINST TOXICITY WHEN CONSIDERING EMPTYING THE STOMACH. THE DECISION TO INDUCE VOMITING SHOULD BE MADE BY THE PHYSICIAN. USING GASTRIC LAVAGE SHOULD BE CONSIDERED. KEEP PATIENT'S HEAD BELOW HIPS TO PREVENT PULMONARY ASPIRATION. IF COMATOSE, A CUFFED ENDOTRACHEAL TUBE WILL PREVENT ASPIRATION. ADRENALINE SHOULD NOT BE GIVEN TO A PERSON OVEREXPOSED TO METHYLENE CHLORIDE OR PERCHLOROETHYLENE.

SECTION VI - TOXICITY INFORMATION

Product Contains Chemicals Listed as Carcinogen or Potential Carcinogen By:
IARC--> Yes NTP--> Yes OSHA--> No ACGIH--> No OTHER--> No

METHYLENE CHLORIDE
CARCINOGENESIS:
IHL-HMN TCLO: 500 PPM/LY-1 TFX: CSN 3. ORL-RAT:1275 MG/KG TER,CAR,MUT 9.
IHL-MUS: 4000 PPM/6H-C: CAR 9. INH-RAT:4500PPM/24H(1-17D PREG
IHL-HMN TLCO: 500 PPM/8M TFX: BLD 3. TUMOROGENIC 9.
IHL-RAT TCLO: 3500 PPM/6H/2Y-I:CAR 4.
A PROPORTIONATE MORTALITY STUDY SHOWED NO INCREASE IN DEATH FROM MALIGNANT NEOPLASMS AMONG WORKERS EXPOSED FOR UP TO 30 YEARS TO MEAN CONCENTRATIONS WHEN COMPARED TO CONTROL POPULATIONS. 6.
SKN-RB: 810 MG/24H SEV 4.
EYE-RBT 162 MG MOD 4.
ORL-RAT LD50: 2136 MG/KG 4.
INHALATION STUDIES AT CONCENTRATIONS OF 2000 PPM AND 4000 PPM INCREASED THE INCIDENCE OF BENIGN LIVER AND LUNG TUMORS IN MICE. THREE INHALATION STUDIES OF RATS HAVE SHOWN INCREASED INCIDENCE AT 500 PPM AND ABOVE, AND THE SAME IN MALES AT CONCENTRATIONS OF 1500 PPM AND ABOVE. 6.

PERCHLOROETHYLENE
IHL-HMN TCLO: 96 PPM/7 H: PNS,EYE,CNS 4.
ORL-RAT LD50: 2629 MG/KG 4.
SKN-RBT: 810 MG/24 H SEVERE 4.
IHL-RAT LC50: 34200 MG/M3/8H 4.
EYE-RBT 162 MG MLD 4.

CARBON DIOXIDE
IHL-RAT TCLO: 6PPM/24H (10D PREG) 4.
IHL-HMN LCLO: 9PPM/5M 4.

CONTINUED IN SECTION XI

SECTION VII - REACTIVITY DATA

Stability: X <--Stable <--Unstable
Conditions to Avoid:
OPEN FLAMES, WELDING ARCS, & OTHER HIGH HEAT SOURCES. GROSS H20 CONTAMINATION MAY PRODUCE SMALL AMOUNTS OF HCL ACID BY HYDROLYSIS

Incompatibility (Materials to Avoid):
STRONG ACIDS AND ALKALIES, OXYGEN, NITROGEN PEROXIDE, SODIUM, POTASSIUM, LITHIUM, BARIUM, AND OXIDIZING MATERIALS; PLASTICS.

Hazardous Decomposition Products:
HYDROCHLORIC ACID, PHOSGENE GAS, HYDROGEN CHLORIDE, AND CHLORINE GAS, OXIDES OF CARBON.

Hazardous Polymerization: <--May Occur X <--Will Not Occur
Conditions to Avoid:
NONE KNOWN.

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, VENTILATE THE AREA AND ABSORB WITH AN INERT MATERIAL AND TRANSFER ALL MATERIAL INTO A PROPERLY LABELED CONTAINER FOR DISPOSAL. WEAR 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 SERVERAL LAYERS OF NEWSPAPER AND DISPOSE OF IN THE TRASH.

Neutralizing Agent:
N/A

SECTION IX - SPECIAL PROTECTION INFORMATION

Required Ventilation:
LOCAL VENTILATION IS RECOMMENDED TO CONTROL EXPOSURE FROM OPERATIONS THAT CAN GENERATE MISTS OR VAPORS.

Respiratory Protection:
A NIOSH/MSHA APPROVED RESPIRATOR IN POORLY VENTILATED AREAS AND/OR FOR EXPOSURE ABOVE THE ACGIH TLV OR OSHA PEL.

Glove Protection:

SECTION IX - SPECIAL PROTECTION INFORMATION (Continued)

NEOPRENE RUBBER GLOVES SHOULD BE WORN.

Eye Protection:
GOGGLES AND A FACE SHIELD SHOULD BE WORN.

Other Protection:
'ENT-RESISTANT APRON SHOULD BE WORN. WEAR PROTECTIVE CLOTHING WHEN HANDLING.

SECTION X - STORAGE AND HANDLING INFORMATION

Storage Temperature: Indoors--> X Outdoors--> Heated--> Refrigerated-->
Minimum Temperature: 0°F Maximum Temperature: 100°F

Precautions to be Taken in Handling and Storing:
STORE IN A COOL, DRY WELL-VENTILATED AREA AWAY FROM SUNLIGHT. DO NOT CRUSH OR INCINERATE EMPTY CANS.

Other Precautions:
KEEP OUT OF REACH OF CHILDREN. READ THE ENTIRE LABEL BEFORE USING. FOLLOW THE LABEL DIRECTIONS.

SECTION XI - REGULATORY INFORMATION

Chemical Name	CAS Number	Upper % Limit
METHYLENE CHLORIDE	75-09-2	40
PERCHLOROETHYLENE	127-18-4	60

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.

Please call 1-800-527-9919 for additional information if you are a California customer.
This MSDS is not intended for users in the state of California.

SECTION XII - REFERENCES

1. THRESHOLD LIMIT VALUES FOR CHEMICAL SUBSTANCES AND PHYSICAL AGENTS AND BIOLOGICAL EXPOSURE INDICES, ACGIH, 1996-1997.
2. OSHA PEL.
3. NIOSH REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES, 1982.
4. SAX'S DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS, EIGHTH EDITION, RICHARD J. LEWIS, SR.
5. FRIEDLANDER BR ET AL; JOURNAL OF OCCUPATIONAL MEDICINE 20(10): 657-66, 1978.
6. VENDOR'S MSDS.
7. INTERNATIONAL RESEARCH ON CANCER, MONOGRAPHS, 1987.
   ATIONAL TOXICOLOGY PROGRAM.
   GISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES, MICROMEDEX, 1995.

'D FROM SECTION VI: PERCHLOROETHYLENE
INH-RAT: 1000 PPM/24H (1-22D PREG) : TUMOROGENIC 9.
INH-RAT: 900 PPM/7H (7-13D PREG): TUMOROGENIC 9.
INH-MUS: 3000 PPM/7H (6-15D PREG): FETOTOXIC 9.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED ACCURATE IN LIGHT OF CURRENT FORMULATION. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

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