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DATE OF ISSUE
8/29/2001

SUPERSEDES
6/27/1997

SECTION I - GENERAL INFORMATION

STORC

Chemical Name & Synonyms
N/A

Trade Name & Synonyms
FROST AWAY AEROSOL

Chemical Family:
POLYOL/GLYCOL BLEND

Formula Mixture --> X

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

Address:
BOX 152170
IRVING, TX 75015

Prepared By:
K Dickinson/Chemist

Product Code Number
5195

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 #
METHANOL	FLAM/TOX	200 PPM 1	200 PPM 2	250 PPM 1	67-56-1
1-PROPANOL	FLAM/IRR	200 PPM 1	200 PPM 2	250 PPM 1	71-23-8
PROPYLENE GLYCOL	IRRITANT	N/E 1	N/E 2	N/E	57-55-6
CARBON DIOXIDE	ASPHYX	5000 PPM 1	5000 PPM 2	30000PPM 1	124-38-9

SECTION III - PHYSICAL DATA

Boiling Point (F):	148	Specific Gravity (H2O=1):	0.82
Vapor Pressure (MM HG):	96	Color:	COLORLESS
Vapor Density (Air=1):	>1	Odor:	MILD ALCOHOL
PH @ 100% :	N/E	Clarity:	TRANSPARENT
% Volatile by Volume:	100	Evaporation Rate (BU A/C=1):	<1
Solubility:	COMPLETE	Viscosity:	NONVISCIOUS

SECTION IV - FIRE AND EXPLOSION HAZARD

Flash Point
52 F / SETAFLASH

Flammable Limits
1-PROPANOL/METHANOL

LEL
2.2%

UEL
36.0%

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

Special Fire Fighting Procedures:
FIREFIGHTERS SHOULD WEAR A SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE GEAR. EXTINGUISHING MEDIA SHOULD BE CHOSEN BASED ON THE NATURE OF THE SURROUNDING FIRE. COOL FIRE-EXPOSED CONTAINERS WITH WATER SPRAY TO PREVENT BURSTING.

Unusual Fire and Explosion Hazards:
VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL TO DISTANT SOURCES OF IGNITION AND FLASHBACK. FLAME EXTENSION IS >36 INCHES. BURNEACK IS 3 INCHES.

Aerosol Level (NEPA 30B): 2

NEPA 704 Hazard Rating (0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme)
1 --Health 4 --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)
SKIN CONTACT: MAY CAUSE IRRITATION SEEN AS ITCHING AND REDNESS. PRODUCT MAY BE ABSORBED THROUGH THE SKIN IN HARMFUL AMOUNTS WITH EFFECTS SIMILAR TO INGESTION.
EYE CONTACT: CAUSES SEVERE IRRITATION SEEN AS TEARING, REDNESS AND A BURNING SENSATION.
INHALATION: AT LOW LEVELS OF CONCENTRATION, INITIAL SYMPTOMS INCLUDE HEADACHE, DIZZINESS, NAUSEA, LOSS OF CONCENTRATION AND IRRITATION. WITH HIGH EXPOSURE LEVELS, CENTRAL NERVOUS SYSTEM DEPRESSION (INTOXICATION) AND CARDIAC ARRHYTHMIA MAY OCCUR.
INGESTION: CONTAINS METHANOL WHICH MAY CAUSE BLINDNESS IF INGESTED. MAY CAUSE CENTRAL NERVOUS SYSTEM EFFECTS SUCH AS HEADACHE, DIZZINESS, WEAKNESS, LEG CRAMPS, NAUSEA, VOMITING, DIARRHEA, BLURRED VISION, PAIN IN ABDOMEN AND LOWER BACK. BLUE COLORING OF SKIN AND NAILS AND IN EXTREME CASES COMA OR DEATH.

-Chronic (Long Term Exposure)
WEAKNESS AS A RESULT OF EXPOSURE THROUGH INGESTION.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE ARE PRE-EXISTING RENAL, HEPATIC, CENTRAL NERVOUS SYSTEM DISEASES AND RESPIRATORY AND SKIN CONDITIONS SUCH AS ASTHMA, EMPHYSEMA AND DERMATITIS.
TARGET ORGANS: EYES, CENTRAL NERVOUS SYSTEM, HEART, LIVER, LUNGS, KIDNEYS, PANCREAS AND BRAIN.

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

SECTION V - HEALTH HAZARD DATA (Continued)

Emergency and 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:

IMMEDIATELY RINSE THE EYES WITH WATER. REMOVE ANY CONTACT LENSES AND CONTINUE FLUSHING FOR AT LEAST 15 MINUTES. HOLD THE EYELIDS APART TO ENSURE RINSING OF THE ENTIRE SURFACE OF THE EYES AND LIDS WITH WATER. GET IMMEDIATE MEDICAL ATTENTION.

-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:

IMMEDIATELY GIVE 3 TO 4 GLASSES OF WATER, AND INDUCE VOMITING BY PLACING A FINGER OR BLUNT OBJECT ON THE BACK OF THE VICTIM'S TONGUE. GIVE FLUIDS UNTIL VOMITUS IS CLEAR. GET IMMEDIATE MEDICAL ATTENTION. DO NOT INDUCE VOMITING OR GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS OR CONVULSING PERSON.

-Notes to Physician:

METHANOL IS METABOLIZED TO FORMALDEHYDE AND FORMIC ACID. THIS IN TURN, MAY CAUSE METABOLIC ACIDOSIS, VISUAL DISTURBANCES AND BLINDNESS. BECAUSE METABOLISM MUST OCCUR BEFORE THE TOXIC EFFECTS, TOXIC SYMPTOMS MAY BE DELAYED FROM 6 TO 30 HOURS FOLLOWING INGESTION. ETHANOL COMPETES FOR THE SAME METABOLIC PATHWAY AND HAS BEEN USED AS AN ANTIDOTE. METHANOL IS EFFECTIVELY REMOVED BY HEMODIALYSIS.

SECTION VI - TOXICITY INFORMATION

Product Contains Chemicals Listed as Carcinogen or Potential Carcinogen By:

IARC--> No NTP--> No OSHA--> Yes ACGIH--> No OTHER--> Yes

METHANOL

ORL-RAT-LD50: 5628 MG/KG 3.
IHL-RAT-LC50: 64,000 PPM/4H 3.
SKN-RBT-LD50: 15,800 MG/KG 3.
SKN-RBT: 20MG/24H MOD 3.
EYE-RBT: 100 MG/24H MOD 3.

OVEREXPOSURE TO THIS MATERIAL (OR TO ITS COMPONENTS) HAS BEEN SUGGESTED AS A CAUSE OF CENTRAL NERVOUS SYSTEM DAMAGE IN LABORATORY ANIMALS AND VISUAL IMPAIRMENT IN HUMANS. 4.

METHANOL HAS CAUSED BIRTH DEFECTS IN LABORATORY ANIMALS, BUT ONLY WHEN INHALED AT EXTREMELY HIGH VAPOR CONCENTRATIONS. THE RELEVANCE OF THIS FINDING TO HUMANS IS UNCERTAIN. 4.

1-PROPANOL

SKN-RBT: 500 MG MLD 3.
EYE-RBT: 20 MG/24H MOD 3.
ORL-RAT-LD50: 1870 MG/KG 3.

MUTAGENICITY:

IN VITRO, NO EVIDENCE OF MUTAGENICITY IN MOUSE LYMPHOMA FORWARD ASSAY AND IN AMES TEST, WITH AND WITHOUT ACTIVATION. IN VIVO, NO INFORMATION. 4.

CARCINOGENICITY:

N-PROPANOL WAS NOT CARCINOGENIC IN A MOUSE SKIN-PAINTING STUDY. STUDIES WITH RATS (STOMACH TUBE OR SUBCUTANEOUS INJECTION) REPORT CARCINOGENIC ACTIVITY, BUT THEY ARE NOT CONDUCTED ACCORDING TO ESTABLISHED SCIENTIFIC PROCEDURES AND ARE INADEQUATE FOR CLASSIFYING PROPANOL AS AN ANIMAL CARCINOGEN. THE NTP AND IARC DO NOT LIST N-PROPANOL AS A CARCINOGEN. 4.

PROPYLENE GLYCOL

ORL-RAT LD50: 20 G/KG 3.
ORL-MUS LD50: 22 G/KG 3.
ORL-DOG LD50: 22 G/KG 3.
ORL-RBT LD50: 18500 MG/KG 3.
SKN-RBT LD50: 20800 MG/KG 3.
IHL-RAT TCLO: 2180 MG/M3/6H/ 90D-I 3.
SKN-HMN SDT: 500 MG/7D: MILD 3.

OVEREXPOSURE TO THIS MATERIAL (OR ITS COMPONENTS) HAS BEEN SUGGESTED AS A CAUSE OF KIDNEY DAMAGE IN LABORATORY ANIMALS. 4.

CARBON DIOXIDE

IHL-RAT TCLO: 10000 PPM/24(S)-30 DAY(S) CONTINUOUS 4.
IHL-HMN LCLO: 9PPM/5M 4.

SECTION VII - REACTIVITY DATA

Stability: X --Stable <--Unstable

Conditions to Avoid:

AVOID HEAT, HOT SURFACES, SPARKS AND OPEN FLAMES.

Incompatibility (Materials to Avoid):

STRONG OXIDIZING AGENTS SUCH AS CHLORINE BLEACH AND CONCENTRATED HYDROGEN PEROXIDE. ACIDS, BASES AND METALS SUCH AS ALUMINUM AND MAGNESIUM.

Hazardous Decomposition Products:

OXIDES OF CARBON.

Hazardous Polymerization:

<--May Occur X --Will Not 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, VENTILATE THE AREA AND 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. AEROSOL RECYCLING PROGRAMS ARE AVAILABLE IN MANY AREAS. DO NOT PUNCTURE OR INCINERATE THIS CONTAINER.

SECTION VIII - SPILL OR LEAK PROCEDURES (Continued)

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 OR WHERE MISTING EXISTS.

Glove Protection:
NEOPRENE OR NITRILE RUBBER GLOVES SHOULD BE WORN.

Eye Protection:
CHEMICAL GOGGLES SHOULD BE WORN.

Other Protection:
WEAR PROTECTIVE CLOTHING WHEN HANDLING.

SECTION X - STORAGE AND HANDLING INFORMATION

Storage Temperature: Indoors--> X Outdoors--> Heated--> Refrigerated-->
Minimum Temperature: 0 F Maximum Temperature: 120 F

Precautions to be Taken in Handling and Storing:
USE WITH CAUTION AROUND HEAT, SPARKS, PILOT LIGHTS, STATIC ELECTRICITY AND OPEN FLAME.

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

SECTION XI - REGULATORY INFORMATION

Chemical Name	CAS Number	Upper % Limit
METHANOL	67-56-1	70

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, 2001.
2. OSHA PEL.
3. REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES, CCINFODisc, 2001.
4. VENDOR'S MSDS.

ALL COMPONENTS IN THIS PRODUCT CAN BE FOUND IN THE CURRENT TSCA INVENTORY.

IRR: IRRITANT, FLAM/FLAMM: FLAMMABLE, COMB: COMBUSTIBLE,
CORR: CORROSIVE, CARC: CARCINOGENIC, TOX: TOXIC, N/A: NOT APPLICABLE, N/E: NOT ESTABLISHED, COC: CLEVELAND OPEN CUP, PMCC: PENSKEY-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 CANCER, NTP: NATIONAL TOXICOLOGY PROGRAM, OSHA: OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION, ACGIH: AMERICAN CONFERENCE OF
GOVERNMENTAL INDUSTRIAL HYGIENISTS, TLV: THRESHOLD LIMIT VALUE, PEL: PERMISSIBLE EXPOSURE LIMIT, STEL: SHORT-TERM EXPOSURE LIMIT, MLD: MILD,
MOD: MODERATE, SEV: SEVERE, MUT: MUTAGENIC, ASPHYX: ASPHYXIANT, PNOS: PARTICULATES (INSOLUBLE) NOT OTHERWISE SPECIFIED, SDT: STANDARD DRAIZE TEST, ORL:
ORAL, HMN: HUMAN, IHL: INHALATION

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