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DATE OF ISSUE
6/21/2000

SUPERSEDES
5/28/1998

SECTION I - GENERAL INFORMATION

Chemical Name & Synonyms

Chemical Family:
CHLORINATED/ALIPHATIC BLEND

Manufacturer's Name:
MANTRE, DIVISION OF BCI CORP.

Address:
BOX 152170
IRVING, TEXAS 75015

Trade Name & Synonyms
ZZAP PLUS AEROSOL

Formula Mixture --> X

Prepared By:
C. WILKINSON/CHEMIST

Product Code Number
5622

Emergency Phone Number
800-474-7300

SECTION II - HAZARDOUS INGREDIENTS

THE HAZARDS PRESENTED BELOW ARE THOSE OF THE INDIVIDUAL COMPONENTS

Chemical Name (Ingredients)

METHYLENE CHLORIDE
PETROLEUM OIL
ETHYL ACETATE
CARBON DIOXIDE
HEAVY HYDRO-TREATED NAHTHA
LIGHT HYDRO-TREATED NAHTHA
HEAVY HYDRO-TREATED PETROLEUM DISTILLATE

Hazard	TLV	PEL	STEL	CAS #
FLAMMABLE	50 PPM 1	25 PPM 2	100 PPM	75-09-2
OIL MIST	5 M2/M3 1	5 M2/M3 2	10 M2/M3	8012-95-1
IRRITARY	400 PPM 1	100 PPM 2	NOT EST.	141-28-6
ASPHYXIANT	5000 PPM 1	1000 PPM 2	10000 PPM	128-28-9
OIL MIST	100 PPM 1	500 PPM 2	NOT EST.	64742-82-9
OIL MIST	5 M2/M3 1	5 M2/M3 2	10 M2/M3	64742-51-6
OIL MIST	5 M2/M3 1	5 M2/M3 2	10 M2/M3	64742-52-5

SECTION III - PHYSICAL DATA

Boiling Point (F):	107	Specific Gravity (H20=1):	1.26
Vapor Pressure (MM HG):	250	Color:	AMBER
Vapor Density (Air=1):	2.5	Odor:	METHYLENE CHLORIDE
PH @ 1000 :	N/A	Clarity:	TRANSPARENT
Flammable by Volume:	74	Evaporation Rate (BU A/C=1):	N/A
H2O Solubility:	INSOLUBLE	Viscosity:	NON-VISCOS

SECTION IV - FIRE AND EXPLOSION HAZARD

Flash Point 2500°F / 1370°C	Flammable Limits ETHYL ACETATE	LEL 2.2	UEL 10.7
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Extinguishing Media
 Foam Alcohol Foam CO2 Dry Chemical Water Spray Other

Special Fire Fighting Procedures:
USE WATER SPRAY TO COOL FIRE EXPOSED CONTAINERS. WEAR SELF CONTAINED BREATHING APPARATUS WHEN FIGHTING FIRES.

Unusual Fire and Explosion Hazards:
VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL TO SOURCES OF IGNITION AND FLASHBACK. FLAME EXTENSION 0, BURNING 0.

Aerosol Level (NFPA 30B):

NFPA 704 Hazard Rating (0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme)
 2 - Health 1 - Flammability 0 - Instability 0 - 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: CAUSES IRRITATION SEEN AS TEARING, REDNESS, REDDED VISION, AND A BURNING SENSATION. PROLONGED CONTACT MAY CAUSE POSSIBLE TRANSIENT CORNEAL LESION. SKIN CONTACT: CAUSES IRRITATION SEEN AS ITCHING, REDNESS AND A BURNING SENSATION. PROLONGED CONTACT CAN CAUSE SEVERE IRRITATION AND A BURNING SENSATION. IT MAY CAUSE DEFATTING OF THE SKIN RESULTING IN DERMATITIS. INHALATION: AT LOW LEVELS OF CONCENTRATION, INITIAL SYMPTOMS MAY INCLUDE HEADACHE, DIZZINESS, NAUSEA, LOSS OF CONCENTRATION AND IRRITATION. WITH HIGH EXPOSURE LEVELS, CENTRAL NERVOUS SYSTEM DEPRESSION (INTOXICATION), CARDIAC ARRHYTHMIA, AND DECREASED BODY WEIGHT MAY OCCUR. INGESTION: MAY CAUSE IRRITATION WITH POSSIBLE NAUSEA, VOMITING AND DIARRHEA. INGESTION AND SUBSEQUENT WHITING OF THIS PRODUCT CAN LEAD TO ASPIRATION OF THE PRODUCT INTO THE LUNGS WHICH CAN CAUSE DAMAGE AND MAY BE FATAL. ALCOHOL MAY EXACERBATE THE EFFECTS OF OVEREXPOSURE. AVOID ALCOHOL CONSUMPTION.

-Chronic (Long Term Exposure)
 REPEATED EXPOSURE MAY CAUSE CARBOXYHEMOGLOBINEMIA, THEREBY IMPAIRING THE BLOOD'S ABILITY TO TRANSPORT OXYGEN. TARGET ORGANS: LIVER, KIDNEY, CENTRAL NERVOUS SYSTEM. MEDICAL CONDITIONS AGGRAVATED: PRE-EXISTING LIVER AND KIDNEY DISEASES AND PRE-EXISTING RESPIRATORY AND SKIN CONDITIONS SUCH AS ASTHMA, EMPHYSEMA, AND DERMATITIS.

Primary Routes of Entry: Inhalation Ingestion Absorption

Emergency and First Aid Procedures:

SECTION V - HEALTH HAZARD DATA (Continued)

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

-Ingestion:

GIVE 2 TO 4 GLASSES OF WATER, BUT DO NOT INDUCE VOMITING. IF VOMITING OCCURS, GIVE FLUIDS AGAIN. GET IMMEDIATE MEDICAL ATTENTION. DO NOT GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS OR CONVULSING PERSON.

-Notes to Physician:

ASPIRATION HAZARD: INGESTION AND SUBSEQUENT VOMITING OF THIS PRODUCT CAN LEAD TO ASPIRATION OF THE PRODUCT INTO THE LUNGS WHICH CAN CAUSE DAMAGE AND COULD BE FATAL.

SECTION VI - TOXICITY INFORMATION

Product Contains Chemicals Listed as Carcinogen or Potential Carcinogen By:

IARC - > Yes NTP - > Yes OCHA - > H₃₅₄ ACGIH - > H₃₅₀ OTHER - > H₃₅₀

ETHYL ACETATE		HEAVY HYDROTREATED NAPHTHA
TEL RAT LD50: 1000 PPM	3.	EYE IRR 470 PPM/15M
TEL RAT LD50: 5000 MG/KG	3.	TEL CAT LD50: 10 G/MG/2.5H
EYE IRR 100 PPM	3.	TEL RAT LD50: 5 G/5G
SKN IRR LD50: 20 MG/24H	4.	LIGHT HYDROTREATED NAPHTHA
SKN IRRITATION RPT: SLIGHT	4.	TEL RAT LD50: 5 G/5G
SKN IRRITATION RPT: NONE	4.	SKN RRT LD50: 2 G/5G
EYE IRRITATION RPT: SLIGHT	4.	HEAVY HYDROTREATED DISTILLATE
CARBON MONOXIDE		TEL RAT LD50: 5 G/5G
TEL RAT LD50: 9000 MG/100 PPM	3.	SKN RRT LD50: 2 G/5G
TEL IRR 10000 PPM/1H	3.	PETROLEUM OIL
TEL RAT LD50: 90000 PPM/1H	3.	TEL RAT LD50: 6 G/5G

METHYLENE CHLORIDE		
TEL RAT LD50: 2150 MG/24H	3.	
EYE IRR 100 PPM	3.	
SKN RRT 100 MG/24H SEVERE	3.	
CARCINOGENIC		
TEL IRR: 2500 MG/24H LIFETIME	3.	
TEL RAT: 500 MG/KG LIFETIME	3.	

A PROPORTIONATE MORTALITY STUDY SHOWED NO INCREASE IN DEATH FROM MALIGNANT NEOPLASMS AMONG WORKERS EXPOSED FOR 10 TO 30 YEARS TO NEAR CONCENTRATIONS OF METHYLENE CHLORIDE RANGING FROM 35 PPM TO 118.3 PPM, WHEN COMPARED TO CONTROL POPULATION.

SECTION VII - REACTIVITY DATA

Stability: X = Stable -- = Unstable

Conditions to Avoid:
HEAT, HOT SURFACES, SPARKS OR OPEN FLAME.

Incompatibility (Materials to Avoid):
AMINES, HYDROGEN PEROXIDE, ZINC, ACIDS, BASES, STRONG OXIDIZERS SUCH AS CHLORINE BLEACH AND OTHER REACTIVE METALS.

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

Hazardous Polymerization:
X = May Occur -- = Will Not Occur
Conditions to Avoid:
N/A

SECTION VIII - SPILL OR LEAK PROCEDURES

Steps to be Taken if Material is Released or Spilled:
AEROSOL CONTAINER TO MAJOR SPILL IMMEDIATELY. COVER ANY SPILLED MATERIAL WITH AN INERT ABSORBENT MATERIAL AND PLACE INTO LABELED CONTAINERS FOR PROPER 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:
N/A

SECTION IX - SPECIAL PROTECTION INFORMATION

Required Ventilation:
USE LOCAL EXHAUST TO KEEP AIRBORNE CONCENTRATIONS BELOW RECOMMENDED LEVELS.

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

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

Eye Protection:

SECTION IX - SPECIAL PROTECTION INFORMATION (Continued)

CHEMICAL GOGGLES AND A FACE SHIELD SHOULD BE WORN.

Other Protection:

WEAR PROTECTIVE CLOTHING WHEN HANDLING.

SECTION X - STORAGE AND HANDLING INFORMATION

Storage Temperature: Indoor: X Outdoor: Heated: Refrigerated:
 Minimum Temperature: 35°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. FOLLOW THE LABEL DIRECTIONS.

SECTION XI - REGULATORY INFORMATION

Chemical Name	CAS Number	Upper % Limit
METHYLENE CHLORIDE	75-09-2	30

These ingredients listed above are subject to the reporting requirements of Title III of the Superfund Amendments and Reauthorization Act of 1980 and 40 CFR part 172.

Please call 1-800-527-9999 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 SUBSTANCE AND PHYSICAL AGENTS AND BIOLOGICAL EXPOSURE INDICES, 1997.
2. OSHA PEL.
3. MENDOTA'S MSDS.
4. NIOSH'S DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS, EIGHTH EDITION, RICHARD J. LEWIS, JR.
5. INDUSTRIAL HYGIENE AND TOXICOLOGY 3RD EDITION, F.A. PATTY 1981.
6. REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES, MICROMEDEX, 1995.
7. FRIEDLANDER ET AL; JOURNAL OF OCCUPATIONAL MEDICINE, 29(10):447-450(1987) ALL COMPONENTS IN THIS PRODUCT CAN BE FOUND IN THE CURRENT TSCA INVENTORY.

LER: IRRITANT, FLAM/FLAMM: FLAMMABLE, COMB: COMBUSTIBLE, CORR: CORROSIVE, CARC: CARCINOGENIC, TOX: TOXIC, N/A: NOT APPLICABLE, N/E: NOT ESTABLISHED, CCL: CLEVELAND OPEN CUP, PWC: PENEY MARTIN CLOSED CUP, TOC: TAGLIABUE CLOSED CUP, LEL: LOWER EXPLOSION LIMIT, UEL: UPPER EXPLOSION LIMIT, NFPA: NATIONAL FIRE PROTECTION ASSOCIATION, IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER, RTP: 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

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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