MATERIAL SAFETY DATA SHEET: BREAK AWAY PLUS AEROSOL

Section I - General Information

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10/1 J4 12:00:00 AM

Chemical Name & Synonyms

Chemical Family:

PERTROLEUM/CARBONATE MIXTURE

Manufacturer Name:

MANTEK, DIVISION OF NCH CORP. Manufacturer Address:

BOX 152170 IRVING, TEXAS 75015 Prepared By:

L Boynton/Chemist

7/21/1999 12:00:00 AM Trade Name & Synonyms:

BREAK AWAY PLUS AEROSOL

Formula is a mixture: $\{ \forall \}$

Product Code Number:

5588

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AAICI

Emergency Phone Number:

800-424-9300

Section II - Hazardous Ingredients

THE HAZARDS PRESENTED BELOW ARE THOSE OF THE INDIVIDUAL COMPONENTS

Chemical Name (Ingredients)

MINERAL OIL ZINC OXIDE PROPANE N-BUTANE

CALCIUM CARBONATE CRYSTALLINE SILICA (QUARTZ) CRYSTALLINE SILICA (QUARTZ)
CYCLOHEXANE
N-HEPTANE
N-HEXANE
* OIL MIST VALUES
* ALIPHATIC HYDROCARBON GAS VALUES

Hazard	TLV	PEL	STEL	CAS #
IRRITANŢ	5 MG/M3 \$1	5 MG/M3 \$2	10MG/M3 \$1	8042-47-5
IRRITANT	2 MG/M3 1	5 MG/M3 2	10MG/M3 1	1314-13-2
ASPHX/FLAM	1000 PPM*1	1000 PPM 2	N/E	74-98-6
ASPHX/FLAM	1000 PPM·1	N/E 2.	N/E	106-97-8
IRRITANT	10 MG/M3 1	5 MG/M3 2	N/E	1317-65-3
CARCINOGEN	.05MG/M3 1	3.6MG/M3 2	N/E	14808-60-7
IRRITANT	100 PPM 1	300 PPM 2	N/E	110-82-7
FLAM/IRR	400 PPM 1	500 PPM 2	500 PPM 1	142-82-5
FLAM/IRR	50 PPM 1	500 PPM 2	N/E	110-54-3

Section III - Physical Data

Boiling Point (*F):152* Vapor Pressure (mm Hg):51.7 Vapor Density (Air=1):3 0 pH @ 100% :N/A

Volatile by Volume:52 H,0 Solubility:NEGLIGIBLE Specific Gravity (H20=1):1.02

Color:WHITE TO OFF-WHITE

Odor:SWEET Clarity:OPAQUE

Evaporation Rate (BuAc=1):2.51

Viscosity:vrscous

Section IV - Fire and Explosion Hazard

Flash Point: 74°F

Planmable Limits: N-HEXANE/PROPANE

LEL: 1.1%

Hethod Used: SETAFLASH

DEL: 9.5%

Aerosol Level (NFPA 30B): 3

Extinguishing Media:

[√1 Foam [√] Dry Chemical [√] Alcohol Foam [√] Water Spray

[V] CO2 1 Other NFPA 704 Hazard Rating: -

4-Extreme 3-High 2-Moderate 1-Slight 0-Insignificant

Health: 1 Flammability: 3 Instability: 0

Special:

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 PIRE. 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 AND/OR LOW-LYING SOURCES OF IGNITION AND FLASHBACK, FLAME EXTENSION IS >30 INCHES, BURNBACK IS 4-6 INCHES.

Section V - Health and Hazard Data

Threshold Limit Value:

NOT ESTABLISHED FOR MIXTURE. SEE SECTION II.

Effects of Overexposure:

Acute: (Short Term Exposure)

ACULE: (Short Term Exposure)

EYE CONTACT: CAUSES IRRITATION SEEN AS REDNESS, STINGING, TEARING, A BURNING SENSATION, AND BLURRED VISION. MAY CAUSE DAMAGE TO EYE TISSUE. SKIN CONTAC CAUSE IRRITATION SEEN AS ITCHING, REDNESS, SWELLING, AND A BURNING SENSATION. MAY CAUSE ALLERGIC SKIN REACTION SEEN AS DELAYED SKIN RASH WHICH MAY BE FOLLOWED BY BLISTERING, SCALING, AND OTHER SKIN EFFECTS. PROLONGED OR REPEATED CONTACT AS FROM CLOTHING WET WITH MATERIAL MAY CAUSE DRYING, DEFATTING, CRACKING, AND CHAPPING OF THE SKIN. PRODUCT MAY BE ABSORBED THROUGH THE SKIN IN HARMFUL AMOUNTS. INHALATION: MAY CAUSE A BURNING SENSATION OF THE MOSE, MOUTH, AND THROAT, DIFFICULTY BREATHING, AND RESPIRATORY IRRITATION SEEN AS COUGHING AND SNEEZING. AT LOW VAPOR CONCENTRATIONS, IN HALATION MAY CAUSE CENTRAL NERVOUS SYSTEM EFFECTS SUCH AS HEADAGHE, DIZZINESS, DROWSINESS, WEAKNESS, UNCONCIOUSNESS, POSSIBLE ANESTHETIC EFFECTS FROM CENTRAL NERVOUS SYSTEM DEPRESSION, AND MAY BE FATAL. OVEREXPOSURE MAY PRODUCE SYMPTOMS OF METAL FUME FOR "STARL NERVOUS SYSTEM EFFECTS SUCH AND VAPOR CONCENTRATION WITH POSSIBLE CRAMPS, NAUSEA, VOMITI AND DIARRHEA, MAY CAUSE CENTRAL NERVOUS SYSTEM EFFECTS SIMILAR TO INHALATION. METAL FUME FEVER

Chronic: (Long Term Exposure)

ON PARE OCCASIONS, PROLONGED AND REPEATED EXPOSURE TO HYDROCARBON MIST POSES A RISK OF CHRONIC LUNG INFLAMMATION. THIS CONDITION IS USUALLY ASYMPTOMATIC AS A RF OF REPEATED SMALL ASPIRATIONS. SHORTNESS OF BREATH AND COUCHING ARE THE MOST COMMON SYMPTOMS. ASPIRATION MAY LEAD TO PULMONARY EDEMA AND HEMORRHAGE AND BE FATAL. SIGNS OF LUNG INVOLVEMENT INCLUDE INCREASED RESPIRATION AND HEART RATES AS WELL AS A BUJISH DISCOLORATION OF THE SKIN. CHRONIC SKIN CONTACT MAD THE ARMAINTHIS AND OIL ACRE. MAY CAUSE SKIN SENSITIZATION IN SOME INDIVIDUALS. INHALATION OF CRYSTALLINE SILICA CAN CAUSE A PROGRESSIVE LUNG DISEASE KNOWN AS SILICOSIS, A FIBROSIS (SCARRING) OF THE LUNGS KNOWN TO BE EXACERBATED BY SMOKING. STUDIES INDICATE THAT PERSONS DIAGNOSED WITH SILICOSIS HAVE AN INCREASED RISK OF LUNG CANCER WHICH MAY BE FATAL. SOME STUDIES SHOW EXCESS NUMBERS OF CASES OF SCLERODERMA AND OTHER CONNECTIVE TISSUE DISCORDERS. AN INCREASED INCIDENCE OF KIDNEY DISEASE AND ENDSTAGE RENAL DISEASE, AND AN INCREASED RISK OF TUBERCULOSIS. SCLERODERMA IS AN AUTOIMMUME DISORDER WHICH BECOMES MORE LIKELY WITH INTERNAL ORGAN SCARRING, LIKE THAT WHICH OCCURS IN SILICOSIS. SYMPTOMS OF SCLERODERMA INCLUDE THICKEDING AND STIFFNESS OF THE SKIN.

PARTICULARLY IN THE FINGERS, SHORTNESS OF BREATH, DIFFICULTY SWALLOWING, AND JOINT PROBLEMS. CHRONIC INHALATION OF SOLVENTS LIKE N-HEXANDE HAVE CAUSED HEARTBEAT IRREGULARITY, HEARTBEAT INCREASE, AND PERMANENT CENTRAL AND PERIPHERAL NERVOUS SYSTEM DAMAGE, RESULTING IN DECREASED LEARNING ABILITY, LOSS OF MEMORY, PERSONALITY CHANGES, AND DISTURBANCES IN GAIT. A CONDITION KNOWN AS 'PAINTER'S SYNDROME' CAN OCCUR CAUSING A LOSS OF SENSATION IN THE ARMS AND HANDS

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PERIPHERAL NEUROPATHY). PROLONGED OR REPEATED EXPOSURE MAY CAUSE CARDIAC SENSITIZATION. HEDICAL CONDITIONS AGGRAVATED BY EXPOSURE ARE PRE-EXISTING ESPIRATORY AND SKIN CONDITIONS SUCH AS ASTHMA, EMPHYSEMA, AND DERMATITIS; PRE-EXISTING CARDIOVASCULAR, NEUROLOGICAL, AND REPRODUCTIVE CONDITIONS. TARGET RGANS: BLOOD-FORMING ORGANS, CENTRAL AND PERIPHERAL NERVOUS SYSTEMS, HEART, LIVER, LUNGS, AND THE MALE REPRODUCTIVE SYSTEM.

Primary Routes of	Entry	
√ Inhalation	[] Ingestion	(∀) Absorption

mergency First Aid Procedures:

nhalation:

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

ya Contact:

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

kin Contact:

TPE AWAY MATERIAL WITH A CLOTH WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. WASH WITH SOAP AND WATER. SEEK MEDICAL ATTENTION IF IRRITATION DEVELOPS. LEAN CLOTHING AND SHOES.

ngestions IVE 3 TO 4 GLASSES OF WATER, BUT DO NOT INDUCE VOMITING. IF VOMITING OCCURS, GIVE FLUIDS AGAIN. SEEK MEDICAL ATTENTION IF DISCOMFORT OCCURS.

otes to Physician:

YELOHEXANG RL-RAT LD50: 12705 MG/KG 4. KN-RBT LD: >180 GM/KG 4. KN-RBT-SDT: 1548 MG/2D (INTERMITTENT) 4. HL-RAT TCLO: 300 PPM/6H/2W-I 4.

HL-RAT LC50: 103 G/M3/4H 4. RL-RAT TDL0: 60 G/KG/3W-1 4.

HL-HAT LD50: 25 GM/KG 4. HL-HMN TCLO: 190 PPM/8W 4. YE-RBT-SDT: 10 MG MILD 4.

HEPTANE

-HEXANE

HERE IS NO SPECIFIC ANTIDOTE. TREAT THE PATIENT SYMPTOMATICALLY.

Section VI - Toxicity Information

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- Product Contains Chemicals Listed as Carcinogen or Potential Carcinogen By:
                                                                                                                                                                                               IVI ACGIR
                                                                                                                                                                                                                                                                     [ 1] Other
                                                              [√] NTP
OC CONTENT: 34.9% BY WEIGHT; 52.4% BY VOLUME: 312.5 G/L
RL-RAT TDLO: 92 G/KG/92D-C 4.
RL-RAT LD50: > 5000 MG/KG 3.
KN-RBT LD50: > 2000 MG/KG 3.
YE-RBT SDT: NON-IRRITATING 3.
THE REPORT SOLE NON-INFITTING 3.

UEHLER GUINEA PIG SENSITIZATION TEST: NON-SENSITIZING 3.

KN-RBT SUB-CERONIC: 28-DAY NON-IRRITATING 3.

KN-MSE CHRONIC: 104-WEEK NO SKIN TUMORS AT SITE OF APPLICATION 3.

ODIFIED AMES ASSAY (SALMONELLA TYPHIMURIUM): NEGATIVE 3.

N-VITRO WSE LYMPHOMA ASSAY NEGATIVE TO NO TOXICITY 3.

IFETIME MOUSE SKIN PAINTING STUDIES INDICATED THAT THIS PRODUCT IS NOT MUTAGENIC OR CARCINOGENIC. 3.
INERAL OIL MISTS DERIVED FROM HIGHLY REFINED OILS ARE REPORTED TO HAVE LOW ACUTE AND SUB-ACUTE TOXICITIES IN ANIMALS. EFFECTS FROM SINGLE AND SHORT-TERM EPEBATED EXPOSURES TO HIGH CONCENTRATIONS WELL ABOVE APPLICABLE WORKPLACE EXPOSURE LEVELS INCLUDE LUNG INFLAMMATORY REACTION, LIPOID GRANULOMA FORMATION, AND IPOID PREDUMONIA. IN ACUTE AND SUB-ACUTE STUDIES INVOLVING EXPOSURES TO LOWER CONCENTRATIONS AT OR NEAR CURRENT WORK PLACE EXPOSURE LEVELS PRODUCED NO IGNIFICANT TOXICOLOGICAL EFFECTS. IN LONG TERM STUDIES (UP TO TWO YEARS) NO CARCINOGENIC EFFECTS HAVE BEEN REPORTED IN ANY ANIMAL SPECIES TESTED. 3.
INC OXIDE
RL-RAT LD50: >8437 MG/KG 4
RL-HMN LDLO: 500 MG/KG 4.
HL-HMN TCLO: 600 MG/M3 4.
KN-RBT SDT: 500 MG/24H MILD 4.
YE-RBT SDT: 500 MG/24H MILD 4.
ROPANE
HL-LC50 >40% BY VOLUME 3
 BUTANE
HL-RAT LC50: 658 G/M3/4H 4.
UMAN VOLUNTEERS EXPOSED REPEATEDLY TO GASES OF SIMILAR HYDROCARON MIXTURES RANGING FROM 250 TO 1000 PPM EXHIBITED NO CARDIAC OR PULMONARY FUNCTION
BNORMALITIES. 3.
ALCIUM CARBONATE
HL-RAT TCLO: 84 MG/M3/4H/40W-I 4
ILD TO MODERATE EYE IRRITANT 3.
ILD TO MODERATE SKIN IRRITANT 3.
RL-RAT LD50: 6450 MG/KG 3.
RYSTALLINE SILICA (QUARTZ)
HL-HMN LCLO: 300 UG/M3/10Y-I; LIVER 4.
HL-HMN TCLO: 16 MPPCF/88/17.9Y-I FIBROSIS OF THE LUNG 4.
HL-RAT TCLO: 90 MG/M3/26W-I FIBROSIS OF THE LUNG 4.
UMORIGENICITY
HL-RAT TCLo: S0 MG/M3/6H/71W-I TUMORS 4.
HE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER HAS CONCLUDED THAT 'CRYSTALLINE SILICA INHALED IN THE FORM OF QUARTZ OR CRISTOBALITE FROM OCCUPATIONAL OURCES IS CARCINOGENIC TO HUMANS (GROUP 1). IT ALSO NOTED THAT CARCINOGENICITY WAS NOT DETECTED IN ALL INDUSTRIAL CIRCUMSTANCE STUDIES, AND MAY BE EPENDENT ON EXTERNAL FACTORS AFFECTING ITS BIOLOGICAL ACTIVITY OR DISTRIBUTION OF ITS POLYMORPHS.
TP. KNOWN HUMAN CARCINOGEN
CGIH A2: SUSPECTED HUMAN CARCINOGEN
YCLOHEXANE
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Section VII - Reactivity Data

HIS MATERIAL MAY ADVERSELY AFFECT THE MALE REPRODUCTIVE SYSTEM (DECREASED SPERM COUNTS AND DEGENERATIVE CHANGES IN THE TESTES) BASED ON TESTING IN ABORATORY ANIMALS. 3.

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Stability	Haxardous Polymerization		
[√] Stable [] Unstable	[√] Will not occur [} May occur		
Conditions to Avoid:	Conditions to Avoid:		
AVOID HEAT, HOT SURFACES, SPARKS, AND OPEN FLAMES.	N/A		

tibility (Materials to Avoid):

STRONG OXIDIZING AGENTS SUCH AS CHLORINE BLEACH AND CONCENTRATED HYDROGEN PEROXIDE; ACIDS, CHLORINATED RUBBER, AND HEATED MAGNESIUM.

Hazardous Decomposition Products:

OXIDES OF ALUMINUM AND CARBON; SILICA AND ZINC FUMES.

Section VIII - Spill Or Leak Procedures

Steps to be Taken if Material is Released or Spilled:

DUE TO THE NATURE OF THE AEROSOL FACKAGING, A LARGE SPILL IS UNLIKELY. FOR A SMALL SPILL, WEAR APPROPRIATE PROTECTIVE CLOTHING, ELIMINATE ALL SOURCES OF IGNITION, VENTILATE THE AREA, ABSORB WITH AN INERT MATERIAL, AND TRANSFER ALL MATERIAL INTO A PROPERLY LABBLED CONTAINER FOR DISPOSAL. USE CARE AS SPILLS MAY BE SLIPPERY.

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.

Neutralizing Agent:

Neucraliz N/A

Section IX - Special Protection Information

Required Ventilation:

LOCAL VENTILATION IS RECOMMENDED TO CONTROL EXPOSURE FROM OPERATIONS THAT CAN GENERATE EXCESSIVE LEVELS OF VAPORS OR MISTS. LOCAL VENTILATION IS PREFERRED, BECAUSE IT PREVENTS DISPERSION INTO WORK AREAS BY CONTROLLING IT AT ITS SOURCE.

Respiratory Protection:

RESPIRATORS SHOULD BE SELECTED BY AND USED UNDER THE DIRECTION OF A TRAINED HEALTH AND SAFETY PROFESSIONAL FOLLOWING REQUIREMENTS FOUND IN OSHA'S RESPIRATOR STANDARD (29 CFR 1910.134) AND ANSI'S STANDARD FOR RESPIRATORY PROTECTION (288.2-1992). FOR CONCENTRATIONS ABOVE THE TLV AND/OR PEL BUT LESS THAN 10 TIMES THESE LIMITS, A NIOSH APPROVED HALF-FACEPIECE RESPIRATOR EQUIPPED WITH APPROPRIATE CHEMICAL CARTRIDGES MAY BE USED. FOR CONCENTRATIONS GREATER THAN 10 TIMES THE TLV AND/OR PEL, CONSULT THE NIOSH RESPIRATOR DECISION LOGIC FOUND IN PUBLICATION NO. 87-116 OR ANSI 288.2-1992.

Glove Protection:

NEOPRENE OR NITRILE RUBBER GLOVES SHOULD BE WORN. ENSURE COMPLIANCE WITH OSHA'S PERSONAL PROTECTIVE EQUIPMENT (PPE) STANDARD FOR HAND PROTECTION, 29 CFR 1910.138.

Eva Protection:

ot rotection:

WEAR PROTECTIVE CLOTHING WHEN HANDLING. REMOVE OIL SOAKED CLOTHING AND SHOES. WASH CLOTHING AND CLEAN SHOES BEFORE REUSE. A SAFETY SHOWER AND AN EYEWASH STATION SHOULD BE AVAILABLE.

Section X - Storage and Handling Information

Storage Temperature		Storage Conditions	Storage Conditions		
Max: 120°F	Min: 35°F	[v] Indoors	[√] Outdoors	[] Heated	Refrigerated

Precautions to be Taken in Handling and Storing:

USE WITH CAUTION AROUND HEAT, SPARKS, PILOT LIGHTS, STATIC ELECTRICITY, AND OPEN PLAME.

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
	N/A	10
CYCLOHEXANE	110-82-7	5
N-HEXANE	110-54-3	15

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, 2004. 2. OSHA PEL. 3. VENDOR'S MSDS. 4. REGISTRY OF TOXIC EPFECTS OF CHEMICAL SUBSTANCES, CCINFOWeb, 2004. ALL THE COMPONENTS OF THIS PRODUCT ARE IN COMPLIANCE WITH THE TOXIC SUBSTANCES CONTROL ACT (TSCA) AN ARE EITHER LISTED ON THE TSCA INVENTORY OR OTHERWISE EXEMPTED FROM LISTING. IRR:IRRITANT, FLAM/FLAMM.F

MANTEK. DIVISION OF NCH CORP. assumes no responsibility for personal injury or property damage caused by the use, storage, or disposal of the product in a manner not recommended on the product label. Users assume all risks associated with such unrecommended use, storage, or disposal of the product.

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