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CHEMICAL PRODUCT AND COMPANY INFORMATION

REVISION DATE: 04/03/1995  
UN NUMBER- N/A

PRIMARY APPLICATION- ANTIFREEZE AND COOLANT

MANUFACTURER- SUN COMPANY, INC.  
TEN PENN CENTER  
1801 MARKET STREET  
PHILADELPHIA PA 19103-1699

SYNONYMS.....: ANTIFREEZE AND COOLANT  
CAS REGISTRY NO: SEE SECT. 2  
CAS NAME.....: NO CLASSIFICATION  
CHEMICAL FAMILY: BLEND  
INFORMATION

SUPPLIER... MARIA DAYRIT  
PHONE.....: (215) 246-8201

EMERGENCY PHONE NUMBERS (AFTER NORMAL BUSINESS HOURS)  
SUN CO.. 1-800-964-8861  
CHEMTREC. 1-800-424-9300

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2. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT/CAS NO.	LO%	HI%	EXPOSURE GUIDELINES						UNIT
			OSHA		ACGIH		SUN/MFR		
			TWA	STEL	TWA	STEL	TWA	STEL	
LIMITS FOR THE PRODUCT:									
									NO SPECIFIC LIMIT
ETHYLENE GLYCOL 107-21-1	.00	100.0				39			PPM
						CEILING LIMIT			39 PPM
SODIUM NITRATE 7631-99-4	.00	100.0							NO SPECIFIC LIMIT
POTASSIUM PHOSPHATE DIBASIC 7758-11-4	.00	100.0							NO SPECIFIC LIMIT
BORAX, ANHYDROUS 1303-96-4	.00	100.0							NO SPECIFIC LIMIT

ADDITIONAL EXPOSURE LIMITS ----- GOVERNMENT REGULATION  
OTHER LIMIT- SEE SECTION 2

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3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW -----

WARNING! HIGH VAPOR CONCENTRATIONS MAY CAUSE DIZZINESS. MAY CAUSE SKIN IRRITATION. MAY CAUSE EYE IRRITATION. MAY CAUSE SEVERE CHRONIC TOXICITY.

APPEARANCE-- BLUE GREEN ODOR-- CHARACTERISTIC

POTENTIAL HEALTH EFFECTS -----

PRIMARY ROUTES OF ENTRY- INHALATION( X ) SKIN( X ) EYE( X ) INGESTION( X )

INHALATION -----

EXCESSIVE EXPOSURES MAY CAUSE IRRITATION TO EYES, NOSE, THROAT, LUNGS; RESPIRATORY TRACT; CENTRAL NERVOUS SYSTEM (BRAIN) EFFECTS; HEADACHES, NAUSEA; DIZZINESS, LOSS OF BALANCE AND COORDINATION; UNCONSCIOUSNESS, COMA; RESPIRATORY FAILURE AND DEATH.

SKIN -----

SKIN ABSORPTION OF MATERIAL MAY PRODUCE SYSTEMIC TOXICITY. MAY CAUSE MODERATE IRRITATION WITH PROLONGED OR REPEATED CONTACT. REMOVES NATURAL OILS & FATS FROM SKIN.

EYE -----

CONTACT WITH THE EYE MAY CAUSE MODERATE IRRITATION.

INGESTION -----

INGESTION OF THIS MATERIAL MAY CAUSE CENTRAL NERVOUS SYSTEM (BRAIN) EFFECTS; NAUSEA, VOMITING AND DIARRHEA;

CARCINOGEN LISTED BY-IARC(NO) NTP(NO) OSHA(NO) ACGIH(NO) OTHER(NO)

PRE-EXISTING MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE- DISORDERS OR DISEASES OF THE SKIN, EYE, LIVER, KIDNEY, RESPIRATORY, PULMONARY AND LUNG (E.G. ASTHMA-LIKE CONDITIONS)

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4. FIRST AID MEASURES

INHALATION -----

MOVE PERSON TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION, OBTAIN MEDICAL ASSISTANCE.

SKIN -----

WASH WITH SOAP AND WATER UNTIL NO ODOR REMAINS. IF REDNESS OR SWELLING DEVELOPS, OBTAIN MEDICAL ASSISTANCE. IMMEDIATELY REMOVE SOAKED CLOTHING. WASH CLOTHING BEFORE REUSE. DESTROY CONTAMINATED SHOES.

EYE -----

FLUSH WITH WATER FOR AT LEAST 15 MINUTES. OBTAIN MEDICAL ASSISTANCE.

INGESTION -----

GIVE LIQUIDS AND INDUCE VOMITING UNLESS VICTIM IS UNCONSCIOUS. OBTAIN EMERGENCY MEDICAL ATTENTION. SMALL AMOUNTS WHICH ACCIDENTALLY ENTER MOUTH SHOULD BE RINSED OUT UNTIL TASTE OF IT IS GONE.

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5. FIRE FIGHTING MEASURES

FLASH POINT: 245 OPEN CUP (DEG. F); 118 OPEN CUP (DEG. C)
AUTOIGNITION TEMP.: NOT DETERMINED (DEG. F); NOT DETERMINED (DEG. C)

---FLAMMABLE LIMITS IN AIR---
LOWER EXPLOSIVE LIMIT (LEL): 3.2 % VOLUME
UPPER EXPLOSIVE LIMIT (UEL): 15.3 % VOLUME

FIRE AND EXPLOSION HAZARDS -----
CAN BE MADE TO BURN (FLASH POINT GREATER THAN 200F).

EXTINGUISHING-MEDIA -----
WATER SPRAY. REGULAR FOAM. DRY CHEMICAL. CARBON DIOXIDE.

SPECIAL FIRE FIGHTING INSTRUCTIONS -----
USE WATER SPRAY. COOL TANK/ CONTAINER. WEAR SELF-CONTAINED BREATHING
APPARATUS. WEAR STRUCTURAL FIREFIGHTERS PROTECTIVE CLOTHING.

NFPA/HMIS CLASSIFICATION HAZARD RATING
HEALTH - 1 / 1 0=LEAST 1=SLIGHT
FIRE - 2 / 2 2=MODERATE 3=HIGH
REACTIVITY - 1 / 1 4=EXTREME
PERSONAL PROTECTION INDEX - X

SPECIFIC HAZARD: NONE LISTED

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6. ACCIDENTAL RELEASE MEASURES

CONTAIN SPILL. USE PERSONAL PROTECTIVE EQUIPMENT STATED IN SECTION 8.
ADVISE EPA; STATE AGENCY IF REQUIRED. ABSORB ON INERT MATERIAL. SHOVEL,
SWEEP OR VACUUM SPILL.

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7. HANDLING AND STORAGE

KEEP AWAY FROM HEAT, SPARKS AND FLAME. KEEP CONTAINER TIGHTLY CLOSED.
KEEP IN WELL VENTILATED SPACE. NFPA CLASS IIIIB STORAGE. CONSULT NFPA AND
OSHA CODES. AVOID PROLONGED BREATHING OF MIST OR VAPOR. AVOID PROLONGED
OR REPEATED CONTACT WITH SKIN. AVOID CONTACT WITH EYES. WASH THOROUGHLY
AFTER HANDLING.

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 8. EXPOSURE CONTROL / PERSONAL PROTECTION

CONSULT WITH A HEALTH/SAFETY PROFESSIONAL FOR SPECIFIC SELECTION.

VENTILATION -----

USE ONLY WITH ADEQUATE VENTILATION. VENTILATE AS NEEDED TO COMPLY WITH EXPOSURE LIMIT. MECHANICAL VENTILATION RECOMMENDED.

PERSONAL PROTECTIVE EQUIPMENT -----

EYE -----

SPLASH PROOF CHEMICAL GOGGLES OR FULL FACE SHIELD RECOMMENDED TO PROTECT AGAINST SPLASH OF PRODUCT.

GLOVES -----

PROTECTIVE GLOVES RECOMMENDED WHEN PROLONGED SKIN CONTACT CANNOT BE AVOIDED.

RESPIRATOR -----

CONCENTRATION-IN-AIR DETERMINES PROTECTION NEEDED. USE ONLY NIOSH CERTIFIED RESPIRATORY PROTECTION. HALF-MASK AIR PURIFYING RESPIRATOR WITH ORGANIC VAPOR CARTRIDGES IS ACCEPTABLE TO 10 TIMES THE EXPOSURE LIMIT. FULL-FACE AIR PURIFYING RESPIRATOR WITH ORGANIC VAPOR CARTRIDGES IS ACCEPTABLE TO 50 TIMES THE EXPOSURE LIMIT NOT TO EXCEED THE CARTRIDGE LIMIT OF 1000 PPM. PROTECTION BY AIR PURIFYING RESPIRATORS IS LIMITED. USE A POSITIVE PRESSURE-DEMAND FULL-FACE SUPPLIED AIR RESPIRATOR OR SCBA FOR EXPOSURES ABOVE 50X THE EXPOSURE LIMIT. IF EXPOSURE IS ABOVE IDLH (IMMEDIATELY DANGEROUS TO LIFE & HEALTH) OR THERE IS THE POSSIBILITY OF AN UNCONTROLLED RELEASE OR EXPOSURE LEVELS ARE UNKNOWN THEN USE A POSITIVE PRESSURE-DEMAND FULL-FACE SUPPLIED AIR RESPIRATOR WITH ESCAPE BOTTLE OR SCBA.

OTHER -----

IF CONTACT IS UNAVOIDABLE, WEAR CHEMICAL RESISTANT CLOTHING. SAFETY SHOWER AND EYE WASH AVAILABILITY RECOMMENDED. LAUNDRY SOILED CLOTHES.

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 9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT.....: 345 (DEG. F) \_\_\_\_\_ 144 (DEG. C)  
 MELTING POINT.....: 0 (DEG. F) \_\_\_\_\_ -17.78 (DEG. C)  
 SPECIFIC GRAVITY....: 1.12 (WATER=1)  
 PACKING DENSITY.....: N.D. (KG/M3)  
 VAPOR PRESSURE.....: 0 (MM HG @ 20 DEG C)  
 VAPOR DENSITY.....: 2.0 (AIR=1)  
 SOLUBILITY IN WATER.: 100 (% BY VOLUME)  
 PH INFORMATION.....: N/A AT CONC. N/A G/L H2O  
 % VOLATILES BY VOL..: N.D.  
 EVAPORATION RATE....: < 0.1 (ETHYL ETHER=1)  
 OCTANOL/WATER COEFF.: N.D.  
 APPEARANCE.....: BLUE GREEN  
 ODOR.....: CHARACTERISTIC  
 ODOR THRESHOLD.....: N.D. (PPM)  
 VISCOSITY.....: N.D. SUS @ N.D DEG F ... N.D. CST @ N.D DEG C  
 MOLECULAR WEIGHT....: N.D. (G/MOLE)

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## 10. STABILITY AND REACTIVITY

STABILITY -----  
STABLE.  
INCOMPATIBLE MATERIALS -----  
STRONG OXIDIZERS.  
HAZARDOUS DECOMPOSITION -----  
COMBUSTION WILL PRODUCE CARBON DIOXIDE, CARBON MONOXIDE.  
POLYMERIZATION -----  
WILL NOT OCCUR.

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## 11. TOXICOLOGICAL INFORMATION

## FOR THE PRODUCT -----

INHALATION: OVEREXPOSURE MAY CAUSE EYE, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION, CENTRAL NERVOUS SYSTEM (BRAIN) EFFECTS, DIZZINESS, HEADACHE, NAUSEA, UNCONSCIOUSNESS. REPEATED OVEREXPOSURE MAY CAUSE LIVER, KIDNEY, BLOOD AND BRAIN EFFECTS/DAMAGE. SKIN: PROLONGED OR REPEATED CONTACT MAY CAUSE MODERATE IRRITATION. EYE: CONTACT MAY CAUSE MODERATE IRRITATION. ORAL: HARMFUL OR FATAL IF SWALLOWED. INGESTION MAY CAUSE GASTROINTESTINAL TRACT IRRITATION, NAUSEA, VOMITING AND DIARRHEA.

## ETHYLENE GLYCOL (COMPONENT)

INHALATION: OVEREXPOSURE TO MIST OR VAPORS GENERATED BY HEATING MAY CAUSE EYE, NOSE, THROAT, & RESPIRATORY IRRITATION, CNS (BRAIN) EFFECTS & DIZZINESS. EXCESSIVE PROLONGED EXPOSURES MAY CAUSE KIDNEY, LIVER, BLOOD, BRAIN EFFECTS OR DAMAGE. SKIN & EYE: LARGE ACUTE EXPOSURE MAY CAUSE SYSTEMIC TOXICITY. IRRITANT ON CONTACT. ORAL: TOXIC! HARMFUL OR FATAL IF SWALLOWED. ACUTE POISONING (AS LITTLE AS 100 ML IN HUMANS HAS PRODUCED LETHALITY) CHARACTERIZED BY GI PAIN, NAUSEA, VOMITING, MUSCLE SPASMS, CONVULSIONS AND CNS DEPRESSION, POSSIBLE RENAL AND RESPIRATORY FAILURE, DEATH. IN LAB ANIMALS BY ORAL & INHALATION EXPOSURE FETAL TOXICITY AND BIRTH DEFECTS WERE REPORTED.

## SODIUM NITRATE (COMPONENT)

INHALATION: OVEREXPOSURE MAY CAUSE EYE, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION. SKIN: PROLONGED OR REPEATED CONTACT MAY CAUSE MILD IRRITATION. EYE: CONTACT MAY CAUSE MILD IRRITATION. ORAL: NO DATA.

## POTASSIUM PHOSPHATE DIBASIC (COMPONENT)

INHALATION: DUST MAY CAUSE IRRITATION TO THE EYES, NOSE, THROAT, AND RESPIRATORY TRACT. SKIN: PROLONGED OR REPEATED CONTACT MAY CAUSE MODERATE TO SEVERE IRRITATION. EYE: MODERATE IRRITANT ON CONTACT. INGESTION: IF LARGE AMOUNTS ARE SWALLOWED, POTASSIUM INTOXICATION MAY RESULT CHARACTERIZED BY NUMBNESS IN THE HANDS AND FEET, VOMITING, GI IRRITATION, CONVULSIONS, DISTURBANCES IN HEART RHYTHM, KIDNEY DAMAGE, AND DEATH.

## BORAX, ANHYDROUS (COMPONENT)

NO STATEMENT AVAILABLE

## ===== 12. ECOLOGICAL INFORMATION

AQUATIC TOXICITY -----

NO DATA AVAILABLE.

## ===== 13. DISPOSAL CONSIDERATIONS

FOLLOW FEDERAL, STATE AND LOCAL REGULATIONS. DO NOT FLUSH TO DRAIN/
STORM SEWER. CONTRACT TO AUTHORIZED DISPOSAL SERVICE.

## ===== 14. TRANSPORTATION INFORMATION

DOT-
PROPER SHIPPING NAME- NOT REGULATED
HAZARD CLASS- NOT REGULATED
IDENTIFICATION NUMBER- NOT REGULATED
LABEL REQUIRED- NOT REGULATED

IMDG- PROPER SHIPPING NAME- NO DATA AVAILABLE

IATA- PROPER SHIPPING NAME- NO DATA AVAILABLE

## ===== 15. REGULATORY INFORMATION

SARA 302 THRESHOLD PLANNING QUANTITY. 10000 POUNDS

SARA 304 REPORTABLE QUANTITY ..... 1 POUNDS

SARA 311 CATEGORIES- IMMEDIATE (ACUTE) HEALTH EFFECTS.. Y
DELAYED (CHRONIC) HEALTH EFFECTS.. N
FIRE HAZARD ..... N
SUDDEN RELEASE OF PRESSURE HAZARD. N
REACTIVITY HAZARD ..... N

WHEN A PRODUCT AND/OR COMPONENT IS LISTED BELOW, THE REGULATORY
LIST ON WHICH IT APPEARS IS INDICATED.

ETHYLENE GLYCOL - CA FL MA MN NJ PA RI 01
SODIUM NITRATE - MA NJ PA RI
BORAX, ANHYDROUS - NJ PA

01=SARA 313 02=SARA 302/304 03=IARC CARCINOGEN
04=OSHA CARCINOGEN 05=ACGIH CARCINOGEN 06=NTP CARCINOGEN
07=CERCLA 302.4 08=WHMIS CONTROLLED PROD.
10=OTHER CARCINOGEN
PA=PENNSYLVANIA RTK NJ=NEW JERSEY RTK CA=CALIFORNIA PROP 65
MA=MASSACHUSETTS RTK MI=MICHIGAN 406 MN=MINNESOTA RTK
FL=FLORIDA RI=RHODE ISLAND IL=ILLINOIS

LEVEL OFF ANTIFZ/COOLANT

CODE R00072240000

NY=NEW YORK  
LA=LOUISIANA

WV=WEST VIRGINIA  
ME=MAINE

CT=CONNECTICUT  
OH=OHIO

THIS PRODUCT OR ALL COMPONENTS OF THIS PRODUCT ARE LISTED  
ON THE U.S. TSCA INVENTORY.

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16. OTHER INFORMATION

NONE