MATERIAL SAFETY DATA SHEET
FOR
PLANET EARTH ANTIFREEZE WASHER SOLVENT -2Oo F

SECTION I - PRODUCT IDENTIFICATION

PRODUCT NAME: PLANET EARTH ANTIFREEZE Washer Solvent -20o F

CAS NAME AND NO.: Methanol (67-56-1)

CHEMICAL FAMILY: Aliphatic Alcohol

CHEMICAL FORMULA: CH3OH

MANUFACTURER'S NAME AND ADDRESS:

PLANET EARTH ANTIFREEZE

6307 MATERIAL AVE

LOVES PARK IL, 61111

EMERGENCY TELEPHONE NO.: Infotrac: 1-800-535-5053

SECTION II - HAZARDOUS INGREDIENTS

OSHA TWA
COMPONENT %(WT OR VOL) (UNITS) (UNITS) (UNITS)
Methyl Alcohol ca 33 66 ppm(Lkin)\* 83 ppiu(Skin)\* 200 ppm

\*(Skin) notation indicates that absorption through the skin can contribute significantly to overall exposure.

SECTION III - PHYSICAL PROPERTIES

APPEARANCE AND ODOR: Blue liquid with a characteristic slight alcohol odor.
MOLECULAR WEIGHT 32.05
BOILING POINT (DEGREES FAHRENHEIT): 188
MELTING POINT (DEGREES FAHRENHEIT): -144
VAPOR PRESSURE (MM. OF MERCURY): 97 @ 68o
SPECIFIC GRAVITY (WATER 1): 0.9515
VAPOR DENSITY (AIR = 1): 1.1
PERCENT VOLATILE (BY WEIGHT): ca 100
pH: N/A
SOLUBILITY IN WATER: Totally miscible
EVAPORATION RATE (BUTYL ACETATE = l): 5.9

SECTION IV - PIRE AND EXPLOSION DATA

FLASH POINT: l0l F (Closed Cup)

FIRE EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, alcohol foam, and
water mist or fog. Use a blanketing effect to
smother fire.

FLAMMABLE LIMITS (PERCENT BY VOLUME): LOWER UPPER
6.7 36.5

SPECIAL FIRE FIGHTING PROCEDURES & EOUIPMENT: Firefighters should use self-contained breathing apparatus with full facepiece operated in pressure-
demand or other positive pressure mode, and wear full protective
clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Moderate explosion hazard and dangerous fire hazard when exposed to heat, sparks or flames and can react
vigorously with oxidizing agents.

SECTION V - REACTIVITY DATA

STABILITY: Stable

CONDITIONS TO AVOID: Heat

INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizing agents such as
nitrates, perchlorates or Sulfuric acid.

HAZARDOUS DECOMPOSITION PRODUCTS: Toxic gases and vapors (i.e., carbon monoxide, formaldehyde) may be released
in a Methanol fire.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS TO AVOID: Heat, strong oxidizing agents.

SECTION VI - HEALTH HAZARD INFORMATION

EFFECTS OF OVEREXPOSURE: Methanol is a poisonous, narcotic chemical that can affect the body through inhalation, ingestion, and perhaps prolonged or
repeated skin contact. Absorption by inhalation or ingestion is rapid
and excretion is much slower than for ethyl alcohol, resulting in
delayed effects or compounding of effects by repeated exposure. It
is important to be aware that after ingestion or inhalations, initial
symptoms may be only that of mild intoxication, but may become severe
after 12 to 18 hours. Toxic effects are exerted upon the central
nervous system, especially the optic nerve. Ingestion can produce
blindness; 100-120 ml can be fatal. Symptoms of overexposure includ
dizziness, visual impairment, nausea, respiratory failure, muscular
incoordination and narcosis. Prolonged or repeated skin contact may
cause dermatitis, erythema, scaling, and possibly systemic effects.
See Section VIII

PROBABLE ROUTES OF EXPOSURE: Ingestion, inhalation, skin absorption.

EMERGENCY AND FIRST AID PROCEDURES:

INGESTION: Get medical attention immediately. Induce vomiting with
1 tablespoon of ipecac or by touching the back of the throat
(only if conscious). Once vomiting has occurred, have the
patient drink milk, water, or a solution of sodium bicarbonate
in water (1 heaping teaspoon per quart).

INHALATION: Remove victim to fresh air at once. Restore and/or
support breathing as required. Keep victim warm and at rest.
Get medical attention as soon as possible. Prevent exposure
to Methanol for 7 days.

EYE CONTACT: Wash eyes immediately with running water, lifting the
lower and upper lids occasionally. Get medical attention as
soon as possible.

SKIN CONTACT: Remove contaminated clothing. Wash affected area with
soap and water; apply skin lotions. If skin irritation persists,
get medical attention.

SECTION VII - TOXICITY DATA

ORAL: Human LDLO: 340 mg/kg

DERMAL: Monkey LDLO: 500 mg/kg

INHALATION: Human TCLO: 86000 mg/m3 - lacrimation; cough; other changes
to lungs, thorax or respiration.

CARCINOGENICITY: Not listed in Second Annual Re~ort on Carcinogens, 1981, NTP.

OTHER PERTINENT DATA: Recommended std-air:TWA 200 ppm;CL 800 ppm/15M

SECTION VIII - SPECIAL PROTECTION INFORMATION

PERSONAL PROTECTIVE EQUIPMENT:

PROTECTIVE GLOVES: Rubber

EYE PROTECTION: Safety glasses

RESPIRATORY PROTECTION (SPECIFY TYPE): Any air-supplied respirator
or self-contained breathing apparatus. Only NIOSH or MSHA
approved equipment should be used.

OTHER: Impervious aprons, boots, and face shields (8-inch minimum)
where splashing can occur.

VENTILATION:

LOCAL EXHAUST: To meet TLV requirements; 100 lfm minimum should be
used where vapor exposure is likely.

MECHANICAL (GENERAL): Controls must be sparkproof and explosion-
proof.

SPECIAL: N.A.

OTHER: N.A.

SECTION IX - SPILL1 LEAK. AND DISPOSAL PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

1. Remove all ignition sources.
2. Provide adequate ventilation.
3. Small quantities may be absorbed on paper towels. Evaporate in a
    safe place (such as a fume hood). Burn paper in an approved
    incinerator or open pit away from buildings and people. Large
    quantities can be collected and atomized in a suitable combustion
    chamber. Spills in sensitive areas may be diluted and flushed to
    ground with a water spray. Do not flush to sewer or other confined
    space.
4. Spills of 5,000 pounds or more must be reported to the National
    Response Center (800-424-8802) pursuant to the Comprehensive
    Environmental Response, Compensation and Liability Act.

WASTE DISPOSAL METHODS: Absorb in vermiculate, dry sand, earth or a
similar material and dispose in a secured sanitary landfill. Atomize
in a suitable combustion chamber; dispose of via a licensed waste
solvent disposal company, or reclaim via filtration and distillation
procedures.

CLEAN WATER ACT REQUIREMENTS: N.A.

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) REQUIREMENTS: Methanol is
assigned a hazardous waste number of U154 under 3001. It is
considered a toxic waste.

SECTION X - REGULATORY INFORMATION

FDA: Regulated under 21 CFR 176.200(d) (3) as a component of defoaming
agents which may be safely used as components of articles intended
for use in producing, manufacturing, packing, processing, preparing,
treating, packaging, transporting, or holding food. Also regulated
under §176.210 as a component of defoaming agents used in the
manufacture of paper and paperboard. Approved as component of
paper and paperboard in contact with dry food. (See §176.180(b)(2).)
Listed under §175.105 for use as component of adhesives.

USDA: Information unknown at time of publication.

CPSC: Label required - DANGER: POISON. FLAMMABLE. VAPOR HARMFUL.
MAY BE FATAL OR CAUSE BLINDNESS IF
SWALLOWED. CANNOT BE MADE NON-
POISONOUS. CONTAINS\_\_\_\_\_% METHANOL.

SECTION XI - SPECIAL PRECAUTIONS AND COMMENTS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Ground and electrically interconnect containers for transfer. Use sparkproof tools. No
smoking in areas of use or storage. Avoid prolonged or repeated
breathing of vapor or contact with skin. Avoid contact with eyes.
Contact lenses should not be worn while handling Methanol. Eye wash
stations and safety showers should be available in areas of use.
Do not ingest! Store in a well-ventilated, fireproof area, away from
sources of heat, open flame, and ignition.

OTHER PRECAUTIONS: Provide preplacement medical exams for industrially
exposed workers, with emphasis on neurological and visual functions,
liver and kidney Systems. Provide suitable training to those working
with Methanol. Monitor the workplace. Keep records.

REGISTRATIONS/CERTIFICATIONS: N.A.

IMPORTANT: The information and data herein are believed to be accurate and
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for your consideration, investigation and verification. Buyer assumes
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