

MATERIAL SAFETY DATA SHEET: SKEETER DEFEATER CYLINDERREFILL UNIT-EA**Section I - General Information**

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Chemical Name & Synonyms:**Trade Name & Synonyms:**

SKEETER DEFEATER CYLINDERREFILL UNIT-EA

Chemical Family:

ALIPHATIC HYDROCARBON

Formula is a mixture: [v]

Manufacturer Name:

OUTDOOR SOLUTIONS, INC

Manufacturer Address:P.O. BOX 152170
IRVING, TX 750152170**Prepared By:**

M MCDOWELL/CHEMIST

Product Code Number:

779u

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 #
ALIPHATIC PETROLEUM DISTILLATE	IRRITANT	5 MG/M3 \$1	5 MG/M3 \$2	10MG/M3 \$1	64742-47-8
PIPERONYL BUTOXIDE	IRRITANT	N/E 1	N/E 2	N/E	51-03-6
DIMETHYL ETHER	FLAM/IRR	1000 PPM 3	N/E 2	N/E	115-10-6
1,1-DIFLUOROETHANE	FLAM/IRR	1000 PPM 3	N/E 2	N/E	75-37-6
PYRETHRINS	IRRITANT	5 MG/M3 1	5 MG/M3 2	N/E	8003-34-7
\$ OIL MIST VALUES					

Section III - Physical Data

Boiling Point (°F): 437-462°	Specific Gravity (H₂O=1): 0.80
Vapor Pressure (mm Hg): 5156	Color: PALE YELLOW
Vapor Density (Air=1): > 1	Odor: PYRETHRUM
pH @ 100%: N/A	Clarity: TRANSPARENT
% Volatile by Volume: 100	Evaporation Rate (BuAc=1): > 1
H₂O Solubility: NEGLIGIBLE	Viscosity: NON-VISCOUS

Section IV - Fire and Explosion Hazard

Flash Point: 205°F
Flammable Limits: PETROLEUM DISTILLATES
LEL: 1.3%

Method Used: P.M.C.C.
UEL: 18%
Aerosol Level (NFPA 30B): 1

Extinguishing Media:

[v] Foam	[] Alcohol Foam	[v] CO2
[v] Dry Chemical	[v] Water Spray	[] Other

NFPA 704 Hazard Rating:

4-Extreme	Health: 1
3-High	Flammability: 4
2-Moderate	Instability: 0
1-Slight	Special:
0-Insignificant	

Special Fire Fighting Procedures:

FIREFIGHTERS SHOULD WEAR A SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE GEAR. COOL FIRE-EXPOSED

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CONTAINERS WITH WATER SPRAY TO PREVENT BURSTING.

Unusual Fire and Explosion Hazards:

FLAME EXTENSION IS >18". BURNBACK IS 0". VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL TO DISTANT AND/OR LOW-LYING SOURCES OF IGNITION AND FLASHBACK. PRODUCT MAY PRODUCE A FLOATING FIRE HAZARD AS LIQUID FLOATS ON WATER. STATIC CHARGES GENERATED BY EMPTYING CONTAINER IN OR NEAR FLAMMABLE VAPORS MAY CAUSE FLASH FIRE. THE USE OF WATER SPRAY (FOG) WHILE EFFECTIVE, MAY CAUSE FROTHING AND FOAMING. NEVER USE A WATER JET AS THIS WILL JUST SPREAD THE FIRE. USE CARE AS SPILLS MAY BE SLIPPERY.

Section V - Health and Hazard Data

Threshold Limit Value:

NOT ESTABLISHED FOR MIXTURE. SEE SECTION II.

Effects of Overexposure:

Acute: (Short Term Exposure)

EYE CONTACT: MAY CAUSE IRRITATION SEEN AS STINGING, TEARING, AND REDNESS.

SKIN CONTACT: MAY CAUSE IRRITATION SEEN AS ITCHING AND REDNESS. 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, AND CRACKING OF THE SKIN. PRODUCT MAY BE ABSORBED THROUGH THE SKIN IN HARMFUL AMOUNTS. INJECTION UNDER THE SKIN, IN MUSCLE, OR INTO THE BLOOD STREAM CAN CAUSE IRRITATION, INFLAMMATION, SWELLING, FEVER, AND SYSTEMIC EFFECTS, AND MILD CENTRAL NERVOUS SYSTEM DEPRESSION. INJECTION OF PRESSURIZED HYDROCARBONS CAN CAUSE SEVERE, PERMANENT TISSUE DAMAGE. INITIAL SYMPTOMS MAY BE MINOR. INHALATION: MAY CAUSE RESPIRATORY IRRITATION SEEN AS COUGHING AND SNEEZING. AT LOW VAPOR CONCENTRATIONS, NO HARMFUL EFFECTS ARE EXPECTED. AT HIGH VAPOR CONCENTRATIONS, INHALATION MAY CAUSE CENTRAL NERVOUS SYSTEM EFFECTS SUCH AS HEADACHE, DIZZINESS, DROWSINESS, WEAKNESS, UNCONCIOUSNESS, POSSIBLE ANESTHETIC EFFECTS FROM CENTRAL NERVOUS SYSTEM DEPRESSION, AND MAY BE FATAL.

INGESTION: MAY CAUSE IRRITATION WITH POSSIBLE NAUSEA, VOMITING, AND DIARRHEA. INGESTION AND SUBSEQUENT VOMITING OF THIS PRODUCT CAN LEAD TO ASPIRATION OF THE PRODUCT INTO THE LUNGS WHICH CAN CAUSE DAMAGE AND MAY BE FATAL.

Chronic: (Long Term Exposure)

MAY CAUSE SKIN SENSITIZATION IN SOME INDIVIDUALS. ON RARE OCCASIONS, PROLONGED AND REPEATED EXPOSURE TO HYDROCARBON MIST POSES A RISK OF CHRONIC LUNG INFLAMMATION. THIS CONDITION IS USUALLY ASYMPTOMATIC AS A RESULT OF REPEATED SMALL ASPIRATIONS. SHORTNESS OF BREATH AND COUGHING ARE THE MOST COMMON SYMPTOMS. ASPIRATION MAY LEAD TO PULMONARY EDEMA AND HEMORRHAGE AND MAY BE FATAL. SIGNS OF LUNG INVOLVEMENT INCLUDE INCREASED RESPIRATION AND HEART RATES AS WELL AS A BLUISH DISCOLORATION OF THE SKIN. CHRONIC SKIN CONTACT MAY PROMOTE DERMATITIS AND OIL ACNE. IN RARER CASES, AN INCREASED SENSITIVITY TO SUNLIGHT (PHOTOSENSITIVITY) MAY OCCUR. MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE ARE PRE-EXISTING RESPIRATORY AND SKIN CONDITIONS SUCH AS ASTHMA, EMPHYSEMA, AND DERMATITIS; PRE-EXISTING CARDIOVASCULAR, LUNG, OR KIDNEY CONDITIONS.

TARGET ORGANS: BLOOD FORMING ORGANS, CENTRAL NERVOUS SYSTEM, KIDNEYS, LUNGS. THE PRIMARY ROUTES OF EXPOSURE ARE SKIN AND EYE CONTACT.

Primary Routes of Entry

Inhalation Ingestion Absorption

Emergency First Aid Procedures:

Inhalation:

MOVE PERSON TO FRESH AIR. IF PERSON IS NOT BREATHING, CALL 911 OR AN AMBULANCE, THEN GIVE ARTIFICIAL RESPIRATION, PREFERABLY MOUTH-TO-MOUTH IF POSSIBLE. CALL A POISON CONTROL CENTER OR DOCTOR FOR FURTHER TREATMENT ADVICE.

Eye Contact:

HOLD EYES OPEN AND RINSE SLOWLY AND GENTLY WITH WATER FOR 15-20 MINUTES. REMOVE CONTACT LENSES, IF PRESENT, AFTER THE FIRST 5 MINUTES, THEN CONTINUE RINSING EYES. CALL A POISON CONTROL CENTER OR DOCTOR FOR TREATMENT ADVICE.

Skin Contact:

TAKE OFF CONTAMINATED CLOTHING. RINSE SKIN IMMEDIATELY WITH PLENTY OF WATER FOR 15-20 MINUTES. REMOVE CONTACT LENSES, IF PRESENT, AFTER THE FIRST 5 MINUTES, THEN CONTINUE RINSING EYES. CALL A POISON CONTROL CENTER OR DOCTOR FOR TREATMENT ADVICE.

Ingestion:

IMMEDIATELY CALL A POISON CONTROL CENTER OR DOCTOR. DO NOT INDUCE VOMITING UNLESS TOLD TO DO SO BY A POISON CONTROL CENTER OR DOCTOR. DO NOT GIVE ANY LIQUID TO THE PERSON. DO NOT GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

Notes to Physician:

FOR SKIN EFFECTS, A HIGHLY EFFICIENT THERAPEUTIC AGENT FOR PYRETHRIN EXPOSURE IS TOPICAL APPLICATION OF TOCOPHEROL ACETATE (VITAMIN E).

Section VI - Toxicity Information

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Product Contains Chemicals Listed as Carcinogen or Potential Carcinogen By:

IARC NTP OSHA ACGIH Other

VOC CONTENT: 15% BY WEIGHT; 119.6 G/L

PRODUCT MIXTURE

ORL-RAT LD50: >5,000 MG/KG 3.

IHL-RAT LC50: 4.53 MG/L 3.

ALIPHATIC PETROLEUM DISTILLATE (<3% DMSO EXTRACTABLES)

IHL-RAT LC50: >5.2 MG/L 5.

ORL-RAT LD50: >15,000 MG/KG 5.

SKN-RBT LD50: >2,000 MG/KG 5.

SKN SENSITIZER: NO 3.

SKN IRRITATION: SLIGHT 3.

EYE IRRITATION: SLIGHT 3.

HYDROCARBON MISTS DERIVED FROM PETROLEUM DISTILLATES ARE REPORTED TO HAVE LOW ACUTE AND SUB-ACUTE TOXICITIES IN ANIMALS. EFFECTS FROM SINGLE AND SHORT-TERM REPEATED EXPOSURES TO HIGH CONCENTRATIONS WELL ABOVE APPLICABLE WORKPLACE EXPOSURE LEVELS INCLUDE LUNG INFLAMMATORY REACTION, LIPOID GRANULOMA FORMATION, AND LIPOID PNEUMONIA. IN ACUTE AND SUB-ACUTE STUDIES INVOLVING EXPOSURES TO LOWER CONCENTRATIONS AT OR NEAR CURRENT WORK PLACE EXPOSURE LEVELS PRODUCED NO SIGNIFICANT TOXICOLOGICAL EFFECTS. IN LONG TERM STUDIES (UP TO TWO YEARS) NO CARCINOGENIC EFFECTS HAVE BEEN REPORTED IN ANY ANIMAL SPECIES TESTED. THESE PETROLEUM DISTILLATES ARE SEVERELY HYDROTREATED, SEVERELY SOLVENT EXTRACTED, AND/OR PROCESSED BY MILD HYDROTREATMENT AND EXTRACTION. FOR THIS REASON, THEY ARE NOT CLASSIFIED AS CANCER HAZARDS. 3.

PIPERONYL BUTOXIDE

ORL-RAT (MALE) LD50: 4,570 MG/KG 3.

ORL-RAT (FEMALE) LD50: 7,220 MG/KG 3.

IHL-RAT LC50: >5.9 MG/L/4H 3.

SKN-RBT LD50: 1,880 MG/KG 6.

IN A RECENT STUDY, MARGINALLY HIGHER INCIDENCES OF BENIGN THYROID, PARATHYROID, OVARY, AND LIVER TUMORS WERE OBSERVED IN RATS AND IN LUNGS OF MICE FOLLOWING LIFETIME HIGH DOSE EXPOSURES TO PYRETHRUM. MARGINALLY HIGHER INCIDENCES OF BENIGN LIVER TUMORS WERE OBSERVED IN MICE FOLLOWING LIFETIME HIGH DOSE EXPOSURES TO PIPERONYL BUTOXIDE. THE DOSES AT WHICH TUMORS WERE OBSERVED FOR BOTH PYRETHRUM AND PIPERONYL BUTOXIDE GREATLY EXCEEDED POTENTIAL HUMAN EXPOSURE FROM LABELED USES.

DIMETHYL ETHER

IHL-RAT LC50: 164,000 PPM/4H 3.

1,1-DIFLUOROETHANE

ORL-RAT LDLO: > 1500 MG/KG 4.

IHL-RAT LCLO: 64,000 PPM/4H 4.

PYRETHRIN

ORL-RAT LD50: 200 MG/KG 4.

SKN-RBT LD50: 300 MG/KG 4.

IHL-RAT LC50: 3.4 MG/L 6.

Section VII - Reactivity Data

Stability

Stable Unstable

Conditions to Avoid:

AVOID HEAT, HOT SURFACES, SPARKS, AND OPEN FLAMES.

Hazardous Polymerization

Will not occur May occur

Conditions to Avoid:

N/A

Incompatibility (Materials to Avoid):

STRONG OXIDIZING AGENTS SUCH AS CHLORINE BLEACH AND CONCENTRATED HYDROGEN PEROXIDE. STRONG ACIDS AND BASES.

Hazardous Decomposition Products:

OXIDES OF CARBON.

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, WEAR APPROPRIATE PROTECTIVE CLOTHING, ELIMINATE IGNITION SOURCES OF ELECTRICAL, STATIC, OR FRICTIONAL SPARKS, VENTILATE THE AREA, ABSORB WITH AN INERT MATERIAL AND TRANSFER ALL MATERIAL INTO A PROPERLY LABELED CONTAINER FOR DISPOSAL. USE CARE

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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:

N/A

Section IX - Special Protection Information

Required Ventilation:

LOCAL VENTILATION IS RECOMMENDED TO CONTROL EXPOSURE FROM OPERATIONS THAT CAN GENERATE MISTS OR VAPORS. 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 (Z88.2-1992). 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 Z88.2-1992.

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.

Eye Protection:

SAFETY GLASSES WITH SIDE SHIELDS IF THE METHOD OF USE PRESENTS THE LIKELIHOOD OF EYE CONTACT. ENSURE COMPLIANCE WITH OSHA'S PERSONAL PROTECTIVE EQUIPMENT (PPE) STANDARD FOR EYE AND FACE PROTECTION, 29 CFR 1910.133.

Other Protection:

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

Section X - Storage and Handling Information

Storage Temperature

Max: 120°F Min: 35°F

Storage Conditions

Indoors Outdoors Heated Refrigerated

Precautions to be Taken in Handling and Storing:

WITH CAUTION AROUND HEAT, SPARKS, PILOT LIGHTS, STATIC ELECTRICITY, AND OPEN FLAME. EMPTY CONTAINERS MAY CONTAIN PRODUCT RESIDUES WHICH MAY EXHIBIT THE HAZARDS OF THE PRODUCT. TO AVOID POSSIBLE EXPLOSION DO NOT PRESSURIZE, CUT, WELD, SOLDER, DRILL, GRIND, OR EXPOSE EMPTY CONTAINERS TO HEAT, HOT SURFACES, SPARKS, OR OPEN FLAMES.

Other Precautions:

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

Section XI - Regulatory Information

Chemical Name

PIPERONYL BUTOXIDE

CAS Number

51-03-6

Upper % Limit

5

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.

CALIFORNIA PROPOSITION 65

WARNING: This product contains the following chemical(s) known to the State of California to cause (1) Cancer or (2) Birth Defects or other reproductive harm. This product contains:

BENZENE(1&2), CADMIUM(1&2), ETHYLBENZENE(1), HEXAVALENT CHROMIUM(1), LEAD(1&2), MERCURY(2), NAPHTHALENE(1), AND TOLUENE(2) AS TRACE CONTAMINANTS.

Section XII - References

1. THRESHOLD LIMIT VALUES FOR CHEMICAL SUBSTANCES AND PHYSICAL AGENTS AND BIOLOGICAL EXPOSURE INDICES, ACGIH, 2006.
2. OSHA PEL.

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3. VENDOR'S MSDS.
4. REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES, CCINFOWeb, 2006.
5. EUROPEAN CHEMICAL SUBSTANCES INFORMATION SYSTEM (ESIS) INTERNATIONAL UNIFORM CHEMICAL INFORMATION DATABASE (IUCLID) CHEMICAL DATA SHEETS.
6. HAZARDOUS SUBSTANCES DATA BANK, TOXICOLOGY DATA NETWORK (TOXNET), U.S. NATIONAL LIBRARY OF MEDICINE, 2006.

ALL THE COMPONENTS OF THIS PRODUCT ARE IN COMPLIANCE WITH THE TOXIC SUBSTANCES CONTROL ACT (TSCA) AND ARE EITHER LISTED ON THE TSCA INVENTORY OR OTHERWISE EXEMPTED FROM LISTING.

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:PENSKY-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:ASPHYXIAN, PNOS:PARTICLES (INSOLUBLE) NOT OTHERWISE SPECIFIED, SDT:STANDARD DRAIZE TEST, ORL:ORAL, IHL:INHALATION, HMN:HUMAN

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