
SECTION I - GENERAL INFORMATION

Chemical Name & Synonyms: Trade Name & Synonyms:
N/A PROFESSIONAL ORANGE HAND CLEANER WITH SCRUBBERS

Chemical Family: Formula Mixture:
ORANGE TERPENES/SURFACTANTS X

Manufacturer's Name:
Safety-Kleen Systems, Inc.

Address:
5400 Legacy Dr.
Cluster II, B3
Plano, TX 75024

Prepared By: M McDowell/Chemist
Product Code Number: 32638, 32639
Emergency Phone Number: 800-424-9300

SECTION II - HAZARDOUS INGREDIENTS

THE HAZARDS PRESENTED BELOW ARE THOSE OF THE INDIVIDUAL COMPONENTS:

Chemical Name (Ingredients): D-LIMONENE
Hazard: IRRITANT
TLV: N/E 1.
PEL: N/E 2.
STEL: N/E
CAS#: 5989-27-5

Chemical Name (Ingredients): POLYETHYLENE HOMOPOLYMER
Hazard: IRRITANT
TLV: N/E 1.
PEL: N/E 2.
STEL: N/E
CAS#: 9002-88-4

Chemical Name (Ingredients): ISOPROPYL MYRISTATE
Hazard: IRRITANT
TLV: N/E 1.
PEL: N/E 2.
STEL: N/E
CAS#: 110-27-0

Chemical Name (Ingredients): C9-C11 ETHOXYLATED ALCOHOLS
Hazard: IRRITANT
TLV: N/E 1
PEL: N/E 2
STEL: N/E
CAS#: 68439-46-3

SECTION III - PHYSICAL DATA

Boiling Point (f): 212°
Specific Gravity (H2O=1): 0.986
Vapor Pressure (MM HG): 17.46
Color: ORANGE
Vapor Density (Air=1): 0.6

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Odor: ORANGE
PH @ 100%: 8.0-8.8
Clarity: OPAQUE
Volatile by Volume: 88
Evaporation Rate (BU A/C=1): 0.51
H2O Solubility: APPRECIABLE
Viscosity: VISCOUS

SECTION IV - FIRE AND EXPLOSION HAZARD

Flash Point: >200°F / SETAFLASH
Flammable Limits: D-LIMONENE LEL: 0.7% UEL:6.1%

Extinguishing Media:
Foam: X Alcohol Foam: X CO2: X
Dry Chemical: X Water Spray: X Other:

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 FIRE. COOL FIRE-EXPOSED CONTAINERS WITH WATER SPRAY TO PREVENT THEM FROM BURSTING.

Unusual Fire and Explosion Hazards:
USE CARE AS SPILLS MAY BE SLIPPERY.

NFPA 704 Hazard Rating:
(0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme)
Health: 1 Flammability: 2 Instability: 0 Special:

SECTION V - HEALTH HAZARD DATA

Threshold Limit Value:
NOT ESTABLISHED.

Effects of Overexposure:
-Acute(Short Term Exposure)
EYE CONTACT: CAUSES IRRITATION SEEN AS REDNESS AND TEARING.
SKIN CONTACT: CAUSES IRRITATION SEEN AS ITCHING, REDNESS, DRYNESS, AND DEFATTING OF THE SKIN. MAY CAUSE ALLERGIC SKIN REACTION SEEN AS DELAYED SKIN RASH WHICH MAY BE FOLLOWED BY BLISTERING, SCALING, AND OTHER SKIN EFFECTS.
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. MAY CAUSE AN ALLERGIC RESPIRATORY REACTION.
INGESTION: MAY CAUSE IRRITATION WITH POSSIBLE NAUSEA, VOMITING, AND DIARRHEA.

-Chronic (Long Term Exposure)
MAY CAUSE SKIN AND RESPIRATORY SENSITIZATION IN SOME INDIVIDUALS.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE ARE PRE-EXISTING RESPIRATORY AND SKIN CONDITIONS SUCH AS ASTHMA, EMPHYSEMA, AND DERMATITIS.
TARGET ORGANS: BLOOD-FORMING ORGANS, CENTRAL NERVOUS SYSTEM, AND LUNGS. THE PRIMARY ROUTES OF EXPOSURE ARE SKIN AND EYE CONTACT.

Primary Routes of Entry: Inhalation: X Ingestion: Absorption: X

Emergency and First Aid Procedures:
-Inhalation:

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REMOVE FROM THE AREA TO FRESH AIR. SEEK MEDICAL ATTENTION IF RESPIRATORY IRRITATION DEVELOPS OR IF BREATHING BECOMES DIFFICULT.

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

-Ingestion:

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

-Notes to Physician:

THERE IS NO SPECIFIC ANTIDOTE. TREAT THE PATIENT SYMPTOMATICALLY.

SECTION VI - TOXICITY INFORMATION

Product Contains Chemicals Listed as Carcinogen or Potential Carcinogen By:

IARC: No NTP: No OSHA: No ACGIH: No
OTHER: No

VOC CONTENT: 5.6% BY WEIGHT; 6.5% BY VOLUME; 54.7 G/L

D-LIMONENE

ORL-RAT LD50: >5 G/KG 3.
SKN-RBT LD50: >5 G/KG 3.
SKN-RBT: SEVERELY IRRITATING 3.
EYE-RBT: SEVERELY IRRITATING 3.

POLYETHYLENE HOMOPOLYMER

IHL-MOUSE LC50: 12 GM/MG/30M 3.

RATS INHALING POLYETHYLENE DUST DEVELOPED MILD INFLAMMATORY CHANGES IN THE LUNGS. PROLONGED INHALATION OF THERMAL DEGRADATION PRODUCTS FROM POLYETHYLENE CAUSED NEUROLOGICAL EFFECTS IN RATS. 3.

ANIMAL STUDIES SHOWED NO ADVERSE HEALTH EFFECTS ON THE DIGESTIVE SYSTEM WHEN FED UP TO 20% POLYETHYLENE. 3.

SUBCHRONIC, 50 TO 90 DAY, FEEDING STUDIES CONDUCTED ON RATS, DOGS AND SWINE SHOWED NO EFFECTS FROM DIETARY LEVELS OF 1 TO 20% POWDERED AND SHREDDED POLYETHYLENE. IARC HAS LISTED POLYETHYLENE AS A GROUP 3 SUBSTANCE. 3.

ISOPROPYL MYRISTATE

IHL-RAT LC: >41 GM/M3/1H 4.
ORL-MSE LD50: 49,700 MG/KG 4.
SKN-RBT LD50: 5 GM/KG 4.
SKN-RBT SDT: 426 MG/24H MILD 4.

C9-C11 ETHOXYLATED ALCOHOLS

ORL-RAT LD50: 1378 MG/KG 4.
SKN-RBT LD50: >2 GM/KG 4
SKN-RAT TDLo: 1950 MG/KG/13W-I 4.

SECTION VII - REACTIVITY DATA

Stability: Stable: X Unstable:

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

Incompatibility (Materials to Avoid):

STRONG OXIDIZING AGENTS SUCH AS CHLORINE BLEACH AND CONCENTRATED HYDROGEN PEROXIDE; ALKALIES, ACIDIC AGENTS AND CLAYS, ALUMINUM CHLORIDE, HALOGENS, IODINE PENTAFLOURIDE, VINYL CHLORIDE, SOME PLASTICS, AND RUBBER.

Hazardous Decomposition Products:

OXIDES OF CARBON; OLEFINIC AND PARAFFINIC COMPOUNDS, TRACE AMOUNTS OF ORGANIC ACIDS, KETONES, ALDEHYDES, AND ALCOHOLS.

Hazardous Polymerization:

May Occur: Will Not Occur: X

Conditions to Avoid: N/A

SECTION VIII - SPILL OR LEAK PROCEDURES

Steps to be Taken if Material is Released or Spilled:

WEAR APPROPRIATE PROTECTIVE CLOTHING. USE CARE AS SPILLS MAY BE SLIPPERY. SHUT OFF SOURCE OF LEAK. DIKE AND CONTAIN SPILL. ABSORB WITH AN INERT MATERIAL AND TRANSFER ALL MATERIAL INTO A PROPERLY LABELED CONTAINER FOR DISPOSAL. PREVENT PRODUCT FROM CONTAMINATING SOIL OR FROM ENTERING SEWAGE AND DRAINAGE SYSTEMS AND BODIES OF WATER. FLUSH AREA WITH WATER.

Waste Disposal Method(s):

DISPOSE OF IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS.

Neutralizing Agent:

N/A

SECTION IX - SPECIAL PROTECTION INFORMATION

Required Ventilation:

GENERAL VENTILATION IS NORMALLY ADEQUATE. 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:

NONE UNDER NORMAL CONDITIONS OF USE. 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:

NONE UNDER NORMAL CONDITIONS OF USE. NEOPRENE OR NITRILE RUBBER GLOVES SHOULD BE WORN BY SENSITIVE INDIVIDUALS WHEN HANDLING. ENSURE COMPLIANCE WITH OSHA'S PERSONAL PROTECTIVE EQUIPMENT (PPE) STANDARD FOR HAND PROTECTION, 29 CFR 1910.138.

Eye Protection:

NONE UNDER NORMAL CONDITIONS OF USE. SAFETY GLASSES IF THE METHOD OF APPLICATION PRESENTS THE LIKELIHOOD OF EYE CONTACT. ENSURE COMPLIANCE WITH OSHA'S PERSONAL

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PROTECTIVE EQUIPMENT (PPE) STANDARD FOR EYE AND FACE PROTECTION, 29 CFR
1910.133.

Other Protection:

NONE UNDER NORMAL CONDITIONS OF USE. REMOVE OIL SOAKED CLOTHING AND SHOES. WASH
CLOTHING AND CLEAN SHOES BEFORE REUSE.

SECTION X - STORAGE AND HANDLING INFORMATION

Storage Temperature: Indoors: X Outdoors: Heated: Refrigerated:

Minimum Temperature: 35°F Maximum Temperature: 120°F

Precautions to be taken in Handling and Storing:

ALWAYS STORE MATERIAL IN ITS ORIGINAL CONTAINER. KEEP CONTAINER TIGHTLY
CLOSED WHEN NOT IN USE. KEEP FROM FREEZING. IF PRODUCT FREEZES ALLOW IT TO
SLOWLY WARM TO ROOM TEMPERATURE AND STIR THOROUGHLY BEFORE USING.

Other Precautions:

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

SECTION XI - REGULATORY INFORMATION

No ingredients in this product are subject to the reporting requirements of 313
of Title III and 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) know to the State of
California to cause (1)Cancer or (2)Birth Defects or other reproductive harm.
THIS PRODUCT CONTAINS ACETALDEHYDE(1), BENZENE(1&2), COBALT METAL POWDER(1), 1,4
DIOXANE(1), ETHYLENE OXIDE(1&2), FORMALDEHYDE(1), AND NICKEL(1) 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.
3. VENDOR'S MSDS.
4. REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES, CCINFODisc, 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, P NOS:PARTICLES (INSOLUBLE) NOT OTHERWISE SPECIFIED,
SDT:STANDARD DRAIZE TEST, ORL:ORAL, IHL:INHALATION, HMN:HUMAN

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