



MATERIAL SAFETY DATA SHEET

AND SAFE HANDLING AND DISPOSAL INFORMATION

02/20/91
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ZEP MANUFACTURING COMPANY
FIRST IN MAINTENANCE PRODUCTS

ISSUE DATE: 07/12/89 **ZEP BIG ORANGE**
SUPERSEDES: 06/15/88 PRODUCT NUMBER: 0415

SECTION I - EMERGENCY CONTACTS

ZEP MANUFACTURING COMPANY TELEPHONE: (404)352-1680 BETWEEN 8:00 AM-5:00 PM (EST)
P.O. BOX 2015 NON-OFFICE HOURS, WEEKENDS, AND HOLIDAYS: AREA CODE 404
ATLANTA, GEORGIA 30301 435-2973, 996-0899, 351-2952, 971-3367, 432-2873
LOCAL POISON CONTROL CENTER
TRANSPORTATION EMERGENCY: CHEMTREC: TOLL FREE 1-800-424-9300 ALL CALLS RECORDED
DISTRICT OF COLUMBIA (202)483-7616 ALL CALLS RECORDED

SECTION II - HAZARDOUS INGREDIENTS

DESIGNATIONS	TLV (PPM)	EFFECTS (SEE REVERSE)	% IN PROD.
** D-LIMONENE ** orange distillate; citrus terpene; cyclohexene, 1-methyl-4-(1-methylethenyl)-, (R)- CAS# 5989-27-5; RTECS# GW6360000; OSHA PEL N/D	N/D	CEL SEN	> 90
** ALCOHOLS, C11-C15-SECONDARY, ETHOXYLATED ** CAS# 68131-40-8; RTECS# WZ5200000; OSHA PEL N/D	N/D	EIR	< 5
** NONYLPHENOXYPOLY(ETHYLENEOXY)ETHANOL ** poly(oxy-1,2-ethanediyl), alpha-(nonylphenyl)-omega- hydroxy; CAS# 9016-45-9; RTECS# MD905000; OSHA PEL- N/D	N/D	EIR	< 5

SPECIAL NOTE: ADVERSE HEALTH EFFECTS WOULD NOT BE EXPECTED UNDER RECOMMENDED
CONDITIONS OF USE SO LONG AS PRESCRIBED SAFETY PRECAUTIONS ARE PRACTICED.

SECTION III - HEALTH HAZARD DATA

ACUTE EFFECTS OF OVEREXPOSURE:
THIS PRODUCT CAN BE AN EYE IRRITANT. INFLAMMATION OF EYE TISSUE IS CHARACTERIZED
BY REDNESS, WATERING, AND/OR ITCHING.
ONE OF THE INGREDIENTS IN THIS PRODUCT HAS CAUSED SENSITIZATION REACTIONS IN A
SMALL PERCENTAGE OF THE GENERAL POPULATION.



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SECTION III - HEALTH HAZARD DATA (CONTINUED)

CHRONIC EFFECTS OF OVEREXPOSURE:

CONTACT, ESPECIALLY IF PROLONGED OR REPEATED, MAY CAUSE REDDNESS, ITCHING, OR
BLISTERING OF THE SKIN.

NONE OF THE HAZARDOUS INGREDIENTS ARE LISTED AS CARCINOGENS BY IARC, NTP, & OSHA

EST'D PEL/TLV: NOT ESTABLISHED PRIMARY ROUTES OF ENTRY: N/A

HMIS CODES: HEALTH 1; FLAM. 2; REACT. 0; PERS. PROTECT. A ; CHRONIC HAZ. NO

FIRST AID PROCEDURES:

SKIN : WASH CONTAMINATED SKIN THOROUGHLY WITH SOAP OR A MILD DETERGENT. APPLY A
SKIN CREAM WITH LANOLIN. GET MEDICAL ATTENTION IF IRRITATION PERSISTS.

EYES : IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES, OC-
CASIONALLY LIFTING UPPER AND LOWER LIDS. GET MEDICAL ATTENTION AT ONCE.

INHALE: MOVE EXPOSED PERSON TO FRESH AIR. IF IRRITATION PERSISTS,
GET MEDICAL ATTENTION PROMPTLY.

INGEST: IF THIS PRODUCT IS SWALLOWED, DO NOT INDUCE VOMITING. IF VICTIM IS
CONSCIOUS GIVE PLENTY OF WATER TO DRINK. GET MEDICAL ATTENTION AT ONCE.

SECTION IV - SPECIAL PROTECTION INFORMATION

PROTECTIVE CLOTHING : THE USE OF NEOPRENE, NITRILE OR NATURAL RUBBER GLOVES IS
STRONGLY RECOMMENDED, ESPECIALLY FOR PROLONGED CONTACT.

EYE PROTECTION : WEAR TIGHT-FITTING SPLASH-PROOF SAFETY GLASSES
ESPECIALLY IF CONTACT LENSES ARE WORN.

RESPIRATORY PROTECTION: NO SPECIAL MEASURES ARE REQUIRED.

VENTILATION : NO SPECIAL MEASURES ARE REQUIRED.

SECTION V - PHYSICAL DATA

BOILING POINT (F) : 338-375 est. **SPECIFIC GRAVITY** : 0.844

VAPOR PRESSURE(MMHG): N/A **PERCENT VOLATILE BY VOLUME (%)** : 93.8

VAPOR DENSITY(AIR=1): N/A **EVAPORATION RATE(CCL4** =1): ~33

SOLUBILITY IN WATER : EMULSIFIES **PH(CONCENTRATE)** : N/A

PH(USE DILUTION OF 1:20): 7.6

APPEARANCE AND ODOR : ORANGE LIQUID WITH A CITRUS ODOR

SECTION VI - FIRE AND EXPLOSION DATA

FLASH POINT(F) (METHOD USED): 121F (TCC)

FLAMMABLE LIMITS LEL N/A UEL N/A

EXTINGUISHING MEDIA : FOAM, DRY CHEMICAL, CO2

SPECIAL FIRE FIGHTING: FIRE EXPOSED DRUMS SHOULD BE COOLED WITH STREAM OF WATER.

UNUSUAL FIRE HAZARDS : NONE



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SECTION VII - R E A C T I V I T Y D A T A

STABILITY : STABLE
INCOMPATIBILITY(AVOID) : HEAT, FLAME, SPARK, STRONG ACIDS AND/OR OXIDIZERS
POLYMERIZATION : WILL NOT OCCUR.
HAZARDOUS DECOMPOSITION: CARBON DIOXIDE, CARBON MONOXIDE, AND OTHER UNIDENTIFIED ORGANIC COMPOUNDS.

SECTION VIII - S P I L L A N D D I S P O S A L P R O C E D U R E S

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
IMMEDIATELY ELIMINATE ALL FLAME, IGNITION AND HIGH-HEAT SOURCES. ABSORB SPILL ON INERT ABSORBENT MATERIAL (eg ZEP-O-ZORB). PICK UP AND PLACE RESIDUE IN A CLEAN, D.O.T. SPECIFICATION CONTAINER FOR DISPOSAL. WASH AREA THOROUGHLY WITH A DETERGENT SOLUTION AND RINSE WELL WITH WATER.

WASTE DISPOSAL METHOD:
LIQUIDS CANNOT BE SENT TO LANDFILLS UNLESS SOLIDIFIED. UNUSABLE PRODUCT AND COLLECTED, SPENT MATERIAL MAY REQUIRE DISPOSAL AS A HAZARDOUS WASTE AT A PERMITTED TREATMENT/STORAGE/DISPOSAL FACILITY. SOLVENT WASTES MAY REQUIRE TREATMENT TO MEET THE APPROPRIATE STANDARDS BEFORE DISPOSAL IN A CHEMICAL OR INDUSTRIAL WASTE LANDFILL. CONSULT LOCAL, STATE, AND FEDERAL AGENCIES FOR PROPER DISPOSAL METHOD IN YOUR AREA.

RCRA HAZ. WASTE NOS.: D001

SECTION IX - S P E C I A L P R E C A U T I O N S

PRECAUTIONS TO BE TAKEN WHEN HANDLING AND STORING:
COMBUSTIBLE! STORE AND USE AWAY FROM HEAT, SPARKS, OPEN FLAME, OR ANY SOURCE OF IGNITION.
POST "NO SMOKING" SIGNS ACCORDING TO LOCAL REGULATIONS FOR COMBUSTIBLE LIQUIDS.
KEEP PRODUCT AWAY FROM SKIN AND EYES.
STORE TIGHTLY CLOSED CONTAINER IN A DRY AREA AT TEMPS. BETWEEN 40-120 DEGREES F.
KEEP OUT OF THE REACH OF CHILDREN.

SECTION X - T R A N S P O R T A T I O N D A T A

DOT PROPER SHIPPING NAME
NONE
DOT HAZARD CLASS: N/A
DOT I.D. NUMBER : N/A DOT LABEL/PLACARD: NONE
EPA TSCA CHEMICAL INVENTORY - ALL INGREDIENTS ARE LISTED
EPA CWA 40CFR PART 117 SUBSTANCE(RQ IN A SINGLE CONTAINER): N/A