

ZEP MANUFACTURING COMPANY

02/12/01

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ISSUE DATE: 02/14/00 ZEP 45

SUPERSEDES: 12/20/94 PRODUCT NUMBER: 0174

Aerosol Lubricant

SECTION I - EMERGENCY CONTACTS

MEDICAL EMERGENCY: TOLL FREE 1-877-541-2016 ALL CALLS RECORDED

TRANSPORTATION EMERGENCY: CHEMTREC: TOLL FREE 1-800-424-9300 ALL CALLS RECORDED

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SECTION II - HAZARDOUS INGREDIENTS

DESIGNATIONS	TLV	EFFECTS	% IN	(PPM) (SEE REVERSE)	PROD.
@** TRICHLOROETHYLENE **					
acetylene trichloride;	50	CAR	CNS	IRR	40-50
1-chloro-2,2-dichloroethylene; CAS# 79-01-6; RTECS#					
KX4550000					

\*\* PARAFFIN OIL \*\* blend of heavy and light naph- N/D IRR 15-25  
thenic petroleum distillate; CAS# 64742-52-5; RTECS#  
NONE; OSHA PEL - N/D; ACGIH OIL MIST LIMIT= 5mg/m3

\*\* MINERAL SEAL OIL \*\* (mineral oil); petrolatum; N/A IRR 5-15  
CAS# 64742-30-9; RTECS# - NONE; ACGIH/OSHA OIL MIST  
LIMIT = 5 mg/m3

\*\* 2-ETHYL HEXYL ALCOHOL \*\* 2-ethyl-1-hexanol; ethyl- N/D IRR CBL < 10  
hexanol; CAS# 104-76-7; RTECS# MP0350000;  
OSHA PEL N/D

@ IDENTIFIES CHEMICALS LISTED UNDER SARA-SECTION 313 FOR RELEASE REPORTING.

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### SECTION III - H E A L T H H A Z A R D D A T A

SPECIAL NOTE: MSDS data pertains to the product as dispensed from the container.  
Adverse health effects would not be expected under recommended conditions  
of use (diluted) so long as prescribed safety precautions are practiced.

#### ACUTE EFFECTS OF OVEREXPOSURE:

Inhalation of vapor can produce central nervous system depression, characterized  
by dizziness, headache, nausea, cardiac and/or respiratory depression, and stu-  
por. In extreme cases, unconsciousness or death could result in poorly ventilated  
or confined spaces. Exposure to high concentrations of vapor can be irritating  
to mucous membranes, such as eyes and upper respiratory tract. Severe eye  
exposure to liquid can cause reversible eye damage. Skin contact may cause a

burning sensation and reddening of the skin. Introduction of solvent to the lungs, as in aspiration of vomitus fluids, may cause chemical pneumonia. Exposure to this product may aggravate existing respiratory or cardiac conditions. Inhalation of aerosol mist may produce chemical pneumonia.

#### CHRONIC EFFECTS OF OVEREXPOSURE:

Repeated or prolonged contact by inhalation or skin absorption may produce liver or kidney damage or damage to the central nervous system, characterized by tingling or numbness in the extremities, blurred vision or confusion. Skin, which is defatted by repeated exposure to solvents, is more susceptible to irritation, infection, and dermatitis.

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#### SECTION III - HEALTH HAZARD DATA (CONTINUED)

#### CHRONIC EFFECTS OF OVEREXPOSURE: (CONTINUED)

Trichloroethylene has been listed as a liver carcinogen. The results were observed when trichloroethylene was given orally to mice, but were not observed in rats or hamsters. Human relevance is questionable since the

metabolic mechanism in mice does not apply in humans.

EST'D PEL/TLV: Not established    PRIMARY ROUTES OF ENTRY: Inh, Skin.

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HMIS CODES: HEALTH 2; FLAM. 1; REACT. 0; PERS. PROTECT. B ; CHRONIC HAZ. YES

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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, occasionally lifting upper and lower lids. Get medical attention at once.

INHALE: Move exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. Get medical attention immediately.

INGEST: If this product is swallowed, do not induce vomiting. If individual is alert, give plenty of water to drink. Get medical attention at once.

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SECTION IV - SPECIAL PROTECTION INFORMATION

PROTECTIVE CLOTHING : Wear viton gloves or use gloves with demonstrated resistance to the ingredients in this product.

EYE PROTECTION : Wear tight-fitting splash-proof safety glasses especially if contact lenses are worn.

RESPIRATORY PROTECTION: Keep face away from spray mist and do not breathe vapors.

VENTILATION : Provide local exhaust/ventilation as needed to keep con-

centration of vapors below exposure limits (PEL/TLV).

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SECTION V - P H Y S I C A L D A T A (FOR FILL MATERIAL ONLY)

BOILING POINT (F) : 189 INITIAL SPECIFIC GRAVITY : 1.104

VAPOR PRESSURE(MMHG): N/D EVAPORATION RATE(CCL4 =1): 0.7

VAPOR DENSITY(AIR=1): N/D PH(CONCENTRATE) : N/A

SOLUBILITY IN WATER : NEGLIGIBLE PH(USE DILUTION OF N/A ): N/A

VOC CONTENT (CONCENTRATE) 52.0%

APPEARANCE AND ODOR :A CLEAR, BROWN OILY LIQUID HAVING A STRONG, SWEET ODOR.

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SECTION VI - F I R E A N D E X P L O S I O N D A T A

FLASH POINT(F) (METHOD USED): NOT FLAMMABLE (CSMA)

FLAMMABLE LIMITS LEL N/A UEL N/A

EXTINGUISHING MEDIA : Carbon dioxide, dry chemical and foam.

SPECIAL FIRE FIGHTING: Wear self-contained positive pres. breathing apparatus.

UNUSUAL FIRE HAZARDS : Concentrated vapor may ignite if exposed to spark.

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## SECTION VII - REACTIVITY DATA

STABILITY : Stable

INCOMPATIBILITY(AVOID) : Heat, open flame, spark, and oxidizing agents.

POLYMERIZATION : Will not occur.

HAZARDOUS DECOMPOSITION: Hydrogen chloride, phosgene, and chlorine gas

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## SECTION VIII - SPILL AND DISPOSAL PROCEDURES

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

Observe safety precautions in sections 4 & 9 during spill clean-up. Large spills are unlikely due to packaging. Spill may be absorbed on an inert absorbent material (eg Zep-O-Zorb), and placed in a suitable container for disposal.

Wash area thoroughly with a detergent solution and rinse well with water.

### WASTE DISPOSAL METHOD:

Product is consumed in use. Do not crush, puncture or incinerate spent containers. Large numbers of aerosol containers may require handling as a hazardous waste, but in most states total hazardous waste quantities less than 220 lbs per month may allow disposal in a chemical or industrial waste landfill. Consult local, state and federal agencies for the proper disposal method in your area.

RCRA HAZ. WASTE NOS.: N/A-Dispose of according to state/local guidelines.

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## SECTION IX - SPECIAL PRECAUTIONS

### PRECAUTIONS TO BE TAKEN WHEN HANDLING AND STORING:

Do not store at temperatures above 120F (39C) or in direct sunlight. Do not puncture or incinerate container.

Do not breathe spray mists or vapors.

Avoid prolonged contact with skin.

Keep product out of eyes.

Vapors are heavier than air and will accumulate at low points. Ventilation should include floor level exhausting.

Keep out of the reach of children.

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## SECTION X - REGULATORY INFORMATION

DOT PROPER SHIP NAME: CONSUMER COMMODITY,

NOTE: DOT information applies to larger package sizes of affected products.

For some products, DOT may require alternate names and labeling in accordance with packaging group requirements.

DOT HAZARD CLASS: ORM-D

DOT PACKING GROUP:

DOT I.D. NUMBER : N/A DOT LABEL/PLACARD: ORM-D

EPA TSCA CHEMICAL INVENTORY - ALL INGREDIENTS ARE LISTED

EPA CWA 40CFR PART 117 SUBSTANCE(RQ IN A SINGLE CONTAINER): TRICHLOROETHYLENE -

100#

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Date Last Reviewed by Compliance Services : 09/26/00

#### NOTICE

Thank you for your interest in, and use of, Zep products. Zep Manufacturing Co. is pleased to be of service to you by supplying this Material Safety Data Sheet for your files. Zep Manufacturing is concerned for your health and safety. Zep products can be used safely with proper protective equipment and proper handling practices consistent with label instructions and the MSDS. Before using any Zep product, be sure to read the complete label and the Material Safety Data Sheet.

As a further word of caution, Zep wishes to advise that serious accidents have resulted from the misuse of "emptied" containers. "Empty" containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, flame, or other sources of ignition; they may explode or develop harmful vapors and possibly cause injury or death. Clean empty containers by triple rinsing with water or an appropriate solvent. Empty containers must be sent to a drum conditioner before reuse.

#### TERMS AND ABBREVIATIONS - LISTED ALPHABETICALLY BY SECTION

#### SECTION II: HAZARDOUS INGREDIENTS

CAR: Carcinogen - A chemical listed by the National Toxicology Program (NTP),

the International Agency for Research on Cancer (IARC) or OSHA as a definite or possible human cancer causing agent.

CAS #: Chemical Abstract Services Registry Number - A universally accepted numbering system for chemical substances.

CBL: Combustible - At temperatures between 100F and 200F chemical gives off enough vapor to ignite if a source of ignition is present as tested with a closed cup tester.

CNS: Central Nervous System depressant which reduces the activity of the brain and spinal cord.

COR: Corrosive - Causes irreversible injury to living tissue (e.g. burns).

DESIGNATIONS: Chemical and common names of hazardous ingredients.

EIR: Eye Irritant Only - Causes reversible reddening and/or inflammation of eye tissues.

EXPOSURE LIMITS: The time weighted average (TWA) airborne concentration at which most workers can be exposed without any expected adverse effects.

Primary sources include ACGIH TLVs, and OSHA PELs (TWA, STEL and ceiling limits).

ACGIH: American Conference of Governmental Industrial Hygienists.

CEILING: The concentration that should not be exceeded in the workplace during any part of the working exposure.

OSHA: Occupational Safety and Health Administration

PEL: Permissible Exposure Limit - A set of time weighted average exposure values, established by OSHA, for a normal 8-hour day and a 40-hour work week.

PPM: Parts per million - unit of measure for exposure limits.

(S) SKIN: Skin contact with substance can contribute to overall exposure.

STEL: Short Term Exposure Limit - Maximum concentration for a continuous

15-minute exposure period.

TLV: Threshold Limit Value - A set of time weighted average exposure limits, established by the ACGIH, for a normal 8-hour day and a 40-hour work week.

FBL: Flammable - At temperatures under 100F, chemical gives off enough vapor to ignite if a source of ignition is present as tested with a closed cup tester.

HAZARDOUS INGREDIENTS: Chemical substances determined to be potential health or physical hazards based on the criteria established in the OSHA Hazard Communication Standard - 29 CFR 1910.1200

HTX: Highly toxic - the probable lethal dose for a 70kg (150 lb.) man and may be approximated as less than 6 teaspoons (2 tablespoons).

IRR: Irritant - Causes reversible effects in living tissues

(e.g. inflammation) - primarily skin and eyes.

N/A: Not Applicable - Category is not appropriate for this product.

N/D: Not Determined - Insufficient information to make a determination for this item.

RTECS#: Registry of Toxic Effects of Chemical Substances - an unreviewed listing of published toxicology data on chemical substances.

SARA: Superfund Amendment and Reauthorization Act - Section

313 designates chemicals for possible reporting for the Toxics Release Inventory.

SEN: Sensitizer - Causes allergic reaction after repeated exposure.

TOX: Toxic - The probable lethal dose for a 70 kg (150 lb.) man is one ounce (2 tablespoons) or more.

### SECTION III: HEALTH HAZARD DATA

ACUTE EFFECT: An adverse effect on the human body from a single exposure with

symptoms developing almost immediately after exposure or within a relatively short time.

**CHRONIC EFFECT:** Adverse effects that are most likely to occur from repeated exposure over a long period of time.

**EST D PEL/TLV:** This estimated, time-weighted average, exposure limit, developed by using a formula provided by the ACGIH, pertains to airborne concentrations from the product as a whole. This value should serve as guide for providing safe workplace conditions to nearly all workers.

**HMIS CODES:** Hazardous Material Identification System - a rating system developed by the National Paint and Coating Association for estimating the hazard potential of a chemical under normal workplace conditions. These risk estimates are indicated by a numerical rating given in each of three hazard areas (Health/Flammability/Reactivity) ranging from a low of zero to a high of 4. The presence of a chronic hazard is indicated with a yes. Consult HMIS training guides for Personal Protection letter codes which indicate necessary protective equipment.

**PRIMARY ROUTE OF ENTRY:** The way one or more hazardous ingredients may enter the body and cause a generalized-systemic or specific-organ toxic effect.

**ING:** Ingestion - A primary route of exposure through swallowing of material

**INH:** Inhalation - A primary route of exposure through breathing of vapors.

**SKIN:** A primary route of exposure through contact with the skin.

#### SECTION IV: SPECIAL PROTECTION INFORMATION

Where respiratory protection is recommended, use only MSHA and NIOSH approved respirators and dust masks.

MSHA: Mine Safety and Health Administration

NIOSH: National Institute for Occupational Safety and Health

#### SECTION V: PHYSICAL DATA

**EVAPORATION RATE:** Refers to the rate of change from the liquid state to the vapor state at ambient temperature and pressure in comparison to a given substance (e.g. water).

**pH;** A value representing the acidity or alkalinity of an aqueous solution

(Acidic pH = 1; Neutral pH = 7; Alkaline pH = 14)

**VOC CONTENT:** The percentage or amount in pounds per gallon of the product that is regulated as a Volatile Organic Compound under the Clean Air Act of 1990 and various state jurisdictions.

**SOLUBILITY IN WATER:** A description of the ability of the product to dissolve in water.

#### SECTION VII: REACTIVITY DATA

**HAZARDOUS DECOMPOSITION:** Breakdown products expected to be produced upon product decomposition by extreme heat or fire.

**INCOMPATIBILITY:** Material contact by extreme heat and the conditions to avoid to prevent hazardous reactions.

**POLYMERIZATION:** Indicates the tendency of the product's molecules to combine with themselves in a chemical reaction, releasing excess pressure and heat.

**STABILITY:** Indicates the susceptibility of the product to spontaneously and dangerously decompose.

## SECTION VIII: SPILL AND DISPOSAL PROCEDURES

RCRA WASTE NOS: RCRA (Resource Conservation and Recovery Act) waste codes (40 CFR 261) applicable to the disposal of spilled or unusable product from the original container.

## SECTION X: TRANSPORTATION DATA

CWA: Clean Water Act- Federal Law which regulates chemical releases to bodies of water.

RQ: Reportable Quantity - The amount of the specific ingredient that, when spilled to the ground and can enter a storm sewer or natural watershed, must be reported to the National Response Center, and other regulatory agencies.

TSCA: Toxic Substances Control Act - a federal law requiring all commercial chemical substances to appear on an inventory maintained by the EPA.

## DISCLAIMER

All statements, technical information and recommendations contained herein are based on available scientific tests or data which we believe to be reliable. The accuracy and completeness of such data are not warranted or guaranteed. We cannot anticipate all conditions under which this information and our products, or the products of other manufacturers in combination with our products, may be used. Zep assumes no liability or responsibility for loss or damage resulting from the improper use or handling of our products, from incompatible product combinations, or from the failure to follow instructions, warnings, and advisories in the products label and Material Safety Data Sheet.

(rev. 1/98)