



CLEAN ACROSS AMERICA AND  
THROUGHOUT THE WORLD™

ZEP MANUFACTURING COMPANY  
P.O. BOX 2015  
ATLANTA, GEORGIA 30301

# MATERIAL SAFETY DATA SHEET

AND SAFE HANDLING AND DISPOSAL INFORMATION

ISSUE DATE: 01/24/92

SUPERSEDES:

ZEP HC 2000

PRODUCT NO.: 5077

## SECTION I - EMERGENCY CONTACTS

### TELEPHONE:

(404) 352-1680

BETWEEN 8:00 AM - 5:00 PM (EST)

### MEDICAL EMERGENCY:

(404) 435-2973

NON-OFFICE HOURS, WEEKENDS

(404) 351-2952

AND HOLIDAYS, PLEASE CALL YOUR

(404) 432-2873

LOCAL POISON CONTROL

### TRANSPORTATION EMERGENCY:

(404) 922-0923

### CHEMTREC:

1-800-424-9300

TOLL-FREE - ALL CALLS RECORDED

### DISTRICT OF COLUMBIA:

(202) 483-7616

ALL CALLS RECORDED

## SECTION II - HAZARDOUS INGREDIENTS

### DESIGNATIONS

- SODIUM METASILICATE - silicic acid (H<sub>2</sub>-Si-O<sub>3</sub>) disodium salt, water glass, CAS # 6834-92-0, RTECS # VV9275000,

OSHA Dust Limit-2mg/m<sup>3</sup> (for powders only)

@ - ETHYLENE GLYCOL MONOBUTYL ETHER - 2-butoxyethanol, butyl cellosolve, CAS # 111-76-2, RTECS # KJ8575000,

OSHA PEL (SKIN)- 25 ppm

- SODIUM HYDROXIDE - caustic soda, soda lye, CAS # 1310-73-2, RTECS # WB4900000, OSHA/ACGIH CEILING

LIMIT-2 MG M3

TLV  
(PPM)

EFFECTS  
(SEE REVERSE)  
COR

% I  
PRC

N/D

25

TOX IRR CBL

<

N/D

TOX COR

<

@ Identifies chemicals listed under SARA-Section 313 for release reporting

## SECTION III - HEALTH HAZARD DATA

**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:

Corrosive on contact. Overexposure will produce tissue destruction particularly on mucous membranes of eyes, mouth, and respiratory tract. Eye contact may produce severe irritation and blindness unless immediately flushed. Concentrated solutions may produce immediate skin damage. Dilute solutions may produce severe irritation which intensifies as contact continues. Inhalation of mists may produce severe nasal and respiratory irritation or permanent damage. Ingestion will produce tissue damage of the gastrointestinal tract. Overexposure by inhalation may cause respiratory irritation. Ingredients in this product may aggravate existing skin, eye, or respiratory disorders.

### Chronic Effects of Overexposure:

Repeated or prolonged exposure of skin can produce chronic dermatitis characterized by redness, scaling, and blistering. Repeated exposure to spray mists may lead to chronic eye inflammation, chronic respiratory tract irritation or lung damage. Animal studies indicate a potential for liver, kidney, or red blood cell damage. Relevance of these studies or exposure levels which might produce these effects in humans has not been established. None of the ingredients are listed as carcinogens by IARC, NT or OSHA.

Est'd PEL/TLV: Not established

Primary Routes of Entry: Inh, Skin

HMIS Codes: HEALTH 3, FLAM 0, REACT 0, PERS PROTECT B, CHRONIC HAZ YES

### FIRST AID PROCEDURES:

**Skin:** Immediately flush contaminated skin with plenty of water for at least 15 minutes. Get medical attention immediately.

**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. If irritation persists, get medical attention promptly.

**Ingest:** If swallowed, do not induce vomiting. If vomiting occurs, keep head below hip level. Get emergency medical attention immediately.

## SECTION IV - SPECIAL PROTECTION INFORMATION

### Protective Clothing:

Wear a face shield, rubber or neoprene gloves, a rubber apron, and impervious footwear.

### Eye Protection:

Wear splash-proof safety goggles especially if contact lenses are worn.

### Respiratory Protection:

No extra measures are needed if ventilation is adequate.

### Ventilation:

Provide local exhaust/ventilation as needed to keep concentration of vapors below exposure limits (PEL/TLV).

## SECTION V - PHYSICAL DATA

Boiling Point (°F): 213 F

Specific Gravity: 1.04

Vapor Pressure (mmHg): 28

Percent Volatile by Volume (%): 93.4%

Vapor Density (air = 1): > 1

Evaporation Rate (WATER = 1): > 10

Solubility in Water: COMPLETE

pH (concentrate): 13.2

pH (use dilution of): N.D.

Appearance and Odor: A RED LIQUID WITH A "BUTYL" ODOR

## SECTION VI - FIRE AND EXPLOSION DATA

Flash Point (°F) (method used): NONE ( )

Flammable Limits: LEL N/A UEL N/A

Extinguishing Media: Noncombustible

Special Fire Fighting: Wear self-contained positive pressure breathing apparatus

Unusual Fire Hazards: Fire exposed drums should be cooled with stream of water

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## SECTION VII - REACTIVITY DATA

|                          |                                                                          |
|--------------------------|--------------------------------------------------------------------------|
| Stability:               | Stable                                                                   |
| Incompatibility (avoid): | Strong acids and oxidizing agents                                        |
| Polymerization:          | Will not occur                                                           |
| Hazardous Decomposition: | Carbon dioxide, carbon monoxide and other unidentified organic compounds |

## 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 clean-up. Absorb spill on an inert absorbent material (e.g. Zep-O-Zorb), pick up and place in a clean D.O.T. specification container for disposal. Wash area thoroughly with a detergent solution and then rinse well with water.

## Waste Disposal Method:

Liquids cannot be sent to landfills unless solidified. Unusable product and some collected, spent use-dilutions may require disposal as a hazardous waste at a permitted treatment/storage/disposal facility. In most states hazardous wastes in total amounts of 220 lbs. or less per month may be disposed of in a chemical or industrial waste landfill. If company effluent is ultimately treated by a publicly owned treatment works, neutralization of spent tank-solutions with subsequent discharge to the sewer may be possible. Consult local, state and federal agencies for proper disposal method in your area.

ICRA Hazardous Waste Numbers: D002 (SEE ABOVE)

## SECTION IX - SPECIAL PRECAUTIONS

## Precautions to be Taken When Handling and Storing:

Store tightly closed container in a dry area at temps. between 40-120 degrees F. Store away from strong acids and oxidizing compounds. Keep product away from skin and eyes. Do not breathe spray mists or vapors. Clothing or shoes which become contaminated with substance should be removed promptly and not reborn until thoroughly cleaned. Keep out of the reach of children.

## SECTION X - TRANSPORTATION DATA

DOT Proper Shipping Name: COMPOUND, CLEANING, LIQUID

DOT Hazard Class: CORROSIVE MATERIAL

DOT ID Number: NA1760

DOT Label/Placard: CORROSIVE

PA TSCA Chemical Inventory: ALL INGREDIENTS ARE LISTED

PA CWA 40CFR Part 117 substance (RQ in a single container). SODIUM HYDROXIDE, 1000 #

## 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. Wash clean empty containers by triple rinsing with water or an appropriate solvent. Empty containers must be taken to a drum reconditioner before reuse.

TERMS AND ABBREVIATIONS USED IN THE MSDS  
BY SECTION ALPHABETICALLY

## SECTION II: HAZARDOUS INGREDIENTS

**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.

**CL** - Combustible - At temperatures between 100°F and 300°F 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 reduces the activity of the brain and spinal cord.

**IR** - Corrosive - Causes irreversible alterations in living tissue (e.g. burns).

**SIGNATURES** - Chemical and common names of hazardous ingredients.

**I** - Eye Irritant Only - Causes reversible reddening and/or irritation of eye tissues.

**POSURE 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 mists.

**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 100°F, 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 by the criteria established in the OSHA Hazard Communication Standard - 29 CFR 1910.1200.

**HTX** - Highly Toxic - the probable lethal dose for 70 kg (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.

**ND** - Not Determined - Insufficient information for 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 Amendments 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.

**ESTD 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. 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** - It 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).

**PERCENT VOLATILE** - The percentage of the product (liquid or solid) that will evaporate at 212°F and ambient pressure.

**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 or fire.

**INCOMPATIBILITY** - Material contact and conditions to avoid to prevent hazardous reactions.

**POLYMERIZATION** - Indicates the tendency of the product's molecules to combine 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.

**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 product's label and Material Safety Data Sheet.

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