Safety Data Sheet

Zep, Inc.
1310 Seaboard Industrial Blvd.
Atlanta, GA 30318
1-877-I-BUY-ZEP (428-9937)
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Section 1. Chemical Product and Company Identification

Product name ZEP BATTERY CARE

Product use Aerosol Battery Terminal Cleaner

Product code 0308

Date of issue 05/14/12 **Supersedes** 01/11/05

Emergency Telephone Numbers

For MSDS Information:
Compliance Services 1-877-I-BUY-ZEP (428-9937)

For Medical Emergency
(877) 541-2016 Toll Free - All Calls Recorded

For Transportation Emergency
CHEMTREC: (800) 424-9300 - All Calls Recorded
In the District of Columbia (202) 483-7616

Prepared By
Compliance Services
1420 Seaboard Industrial Blvd.
Atlanta, GA 30318

Section 2. Hazards Identification

Emergency overview

*Hazard Determination System (HDS): Health, Flammability, Reactivity

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WARNING!

CAUSES EYE IRRITATION. HARMFUL IF INHALED OR ABSORBED THROUGH SKIN.

CONTENTS UNDER PRESSURE.

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse effects are lessened by following all prescribed safety precautions, including the use of proper personal protective equipment.

Acute Effects

Routes of Entry Dermal contact. Eye contact. Inhalation.

Eyes Causes eye irritation. Inflammation of the eye is characterized by redness, watering and itching.

Skin Harmful if absorbed through the skin. Direct contact may cause irritation and redness. Skin inflammation is characterized by itching, scaling, or reddening.

Inhalation Avoid breathing vapors, spray or mists. Over-exposure by inhalation may cause respiratory irritation. Can cause central nervous system (CNS) depression.

Ingestion May be harmful if swallowed. Can cause gastrointestinal disturbances.

Chronic effects

Contains material which may cause damage to the following organs: blood, kidneys, liver, heart, lymphatic system, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

Carcinogenicity

No known significant effects or critical hazards.

Product/ingredient name

Not available.

Additional Information: See Toxicological Information (Section 11)

Section 3. Composition/Information on Ingredients

Name of Hazardous Ingredients	CAS number	% by Weight
n-Butane	106-97-8	1 - 5
2-butoxyethanol	111-76-2	1 - 5
Sodium bicarbonate	144-55-8	1 - 5
Propane	74-98-6	1 - 5

Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin Contact In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. If irritation persists, get medical attention.

Inhalation Move exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, Get medical attention.

Ingestion Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Section 5. Fire Fighting Measures

National Fire Protection Association (U.S.A.)

Flash Point Not available.

Flammable Limits Not available.

Flammability Non-flammable. (CSMA Method)

Fire hazard CONTENTS UNDER PRESSURE. In a fire or if heated, a pressure increase will occur and the container may burst. Bursting aerosol containers may be propelled from a fire at high speed.

Fire-Fighting Procedures Use an extinguishing agent suitable for the surrounding fire.

Section 6. Accidental Release Measures

Spill Clean up Spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling Put on appropriate personal protective equipment (see section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid breathing gas. Empty containers retain product residue and can be hazardous. After handling, always wash hands thoroughly with soap and water.

Storage Do not store above the following temperature: 49°C (120.2°F). Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure Controls/Personal Protection

Product name	Exposure limits
Butane	**OSHA PEL 1989 (United States, 3/1989).** TWA: 800 ppm 8 hour(s). TWA: 1900 mg/m³ 8 hour(s). **NIOSH REL (United States, 6/2009).** TWA: 800 ppm 10 hour(s). TWA: 1900 mg/m³ 10 hour(s). **ACGIH TLV (United States, 2/2010).** TWA: 1000 ppm 8 hour(s).
2-butoxyethanol	**OSHA PEL 1989 (United States, 3/1989). Absorbed through skin.** TWA: 25 ppm 8 hour(s). TWA: 120 mg/m³ 8 hour(s). **NIOSH REL (United States, 6/2009). Absorbed through skin.** TWA: 5 ppm 10 hour(s). TWA: 24 mg/m³ 10 hour(s). **ACGIH TLV (United States, 2/2010).** TWA: 20 ppm 8 hour(s). **OSHA PEL (United States, 6/2010). Absorbed through skin.** TWA: 50 ppm 8 hour(s). TWA: 240 mg/m³ 8 hour(s).
propane	**OSHA PEL 1989 (United States, 3/1989).** TWA: 1000 ppm 8 hour(s). TWA: 1800 mg/m³ 8 hour(s). **NIOSH REL (United States, 6/2009).** TWA: 1000 ppm 10 hour(s). TWA: 1800 mg/m³ 10 hour(s). **OSHA PEL (United States, 6/2010).** TWA: 1000 ppm 8 hour(s). TWA: 1800 mg/m³ 8 hour(s). **ACGIH TLV (United States, 2/2010).** TWA: 1000 ppm 8 hour(s).

Personal Protective Equipment (PPE)

Eyes Safety glasses.

Body Neoprene, Nitrile or Rubber gloves.

Respiratory Use with adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits.

Section 9. Physical and Chemical Properties

Physical State Liquid. [Aerosol.]
pH Not applicable.
Boiling Point 101.67°C (215°F)
Specific Gravity 1
Solubility Easily soluble in the following materials: cold water and hot water.

Color Milky-white (Light.)
Odor Mild.
Vapor Pressure Not available.
Vapor Density Not available.
Evaporation Rate 1 (Water = 1)

VOC (Consumer) 8.2 % (w/w) 0.686 lbs/gal (82.2 g/l)

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.
Incompatibility Reactive or incompatible with the following materials: oxidizing materials and metals.
Hazardous Polymerization Under normal conditions of storage and use, hazardous polymerization will not occur.
Hazardous Decomposition Products carbon oxides (CO, CO_2)

Section 11. Toxicological Information

Acute Toxicity

Butane	LC50 Inhalation Vapor	Rat	658000 mg/m3	4 hours
2-butoxyethanol	LC50 Inhalation Gas.	Rat	450 ppm	4 hours
	LD50 Dermal	Rabbit	220 mg/kg	-
	LD50 Oral	Rat	250 mg/kg	-
sodium hydrogencarbonate	LD50 Oral	Rat	4220 mg/kg	-

Section 12. Ecological Information

Environmental Effects Not available.

Aquatic Ecotoxicity

2-butoxyethanol	-	Acute EC50 >1000 mg/L Fresh water	Daphnia - Water flea - Daphnia magna - <24 hours	48 hours
	-	Acute LC50 800000 ug/L Marine water	Crustaceans - Common shrimp, sand shrimp - Crangon crangon	48 hours
	-	Acute LC50 1250000 ug/L Marine water	Fish - Inland silverside - Menidia beryllina - 40 to 100 mm	96 hours
sodium hydrogencarbonate	-	Acute EC50 650000 ug/L Fresh water	Algae - Diatom - Navicula seminulum	96 hours
	-	Acute LC50 767.87 mg/L Marine water	Crustaceans - Opossum shrimp - Americamysis bahia - 4 to 5 days	48 hours
	-	Acute LC50 7550000 ug/L Fresh water	Fish - Western mosquitofish - Gambusia affinis - Adult	96 hours
	-	Chronic NOEC 576 mg/L Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <24 hours	3 weeks

Section 13. Disposal Considerations

Waste Information

Waste must be disposed of in accordance with federal, state and local environmental control regulations. Consult your local or regional authorities for additional information.

Waste Stream Classification: Non-hazardous waste
Origin: RCRA waste.

Section 14. Transport Information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label
DOT Classification	-	Consumer commodity	ORM-D	-	
IMDG Class	-	Not determined.	-	-	

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.
PG* : Packing group

Section 15. Regulatory Information

U.S. Federal Regulations

SARA 313 toxic chemical notification and release reporting:

Product name

2-butoxyethanol

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

All Components of this product are listed or exempt from listing on TSCA Inventory.

State Regulations

California Prop 65 No products were found.

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

**NOTE: Hazard Determination System (HDS) ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although these ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HDS ratings are to be used with a fully implemented program to relay the meanings of this scale.*