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SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : ZEP POWER HOUSE

Material number : 00000000000028201

Manufacturer or supplier's details

Company : Zep Inc.

Address : 350 Joe Frank Harris Parkway, SE

Emerson, GA 30137

Telephone : 404-352-1680

Emergency telephone numbers

For SDS Information : Compliance Services 1-877-428-9937

For a Medical Emergency : 877-541-2016 Toll Free - All Calls Recorded

For a Transportation : CHEMTREC: 800-424-9300 - All Calls Recorded.

Emergency In the District of Columbia 202-483-7616

Recommended use of the chemical and restrictions on use

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

| Appearance | Aerosol containing a liquefied gas | | |
|------------|------------------------------------|--|--|
| Colour | colourless | | |
| Odour | characteristic | | |

GHS Classification

Gases under pressure : Liquefied gas Skin irritation : Category 2 Eye irritation : Category 2A

GHS label elements

Hazard pictograms



Exclamation mark

Gas cylinder

Signal word : Warning

Hazard statements : H280 Contains gas under pressure; may explode if heated.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

Precautionary statements : **Prevention**:

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/ eye protection/ face protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and

easy to do. Continue rinsing.

P332 + P313 If skin irritation occurs: Get medical advice/

attention.

P337 + P313 If eye irritation persists: Get medical advice/

attention.

P362 Take off contaminated clothing and wash before reuse.

Storage:

P410 + P403 Protect from sunlight. Store in a well-ventilated

place.

P412 Do not expose to temperatures exceeding 50 °C/ 122 °F.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

| Chemical name | CAS-No. | Concentration [%] |
|-----------------|----------|-------------------|
| ethanol | 64-17-5 | >= 10 - < 30 |
| butane | 106-97-8 | >= 1 - < 5 |
| 2-butoxyethanol | 111-76-2 | >= 1 - < 5 |
| 2-aminoethanol | 141-43-5 | >= 1 - < 5 |
| propan-2-ol | 67-63-0 | >= 1 - < 5 |
| propane | 74-98-6 | >= 1 - < 5 |

The exact percentages of disclosed substances are withheld as trade secrets.

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.

Show this safety data sheet to the doctor in attendance.

Do not leave the victim unattended.

If inhaled : If unconscious, place in recovery position and seek medical

advice.

If symptoms persist, call a physician.

In case of skin contact : If skin irritation persists, call a physician.

Wash off immediately with plenty of water for at least 15

minutes.

If on clothes, remove clothes.

In case of eye contact : Remove contact lenses.

Protect unharmed eye.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist. If in eyes, rinse with water for 15 minutes.

If swallowed : Keep respiratory tract clear.

> Never give anything by mouth to an unconscious person. DO NOT induce vomiting unless directed to do so by a

physician or poison control center. If symptoms persist, call a physician.

Most important symptoms and effects, both acute and Effects are immediate and delayed.

Symptoms may include irritation, redness, pain, and rash.

Causes skin irritation.

Causes serious eye irritation.

Review section 2 of SDS to see all potential hazards.

Notes to physician : Treat symptomatically. Symptoms may be delayed.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media Water spray jet

> Alcohol-resistant foam Carbon dioxide (CO2)

Dry chemical

Unsuitable extinguishing

media

delaved

: High volume water jet

Specific hazards during

firefighting

: Do not allow run-off from fire fighting to enter drains or water

courses.

Hazardous combustion

products

: Carbon dioxide (CO2) Carbon monoxide

Smoke

Nitrogen oxides (NOx)

Specific extinguishing

Further information

methods

: Standard procedure for chemical fires.

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Special protective equipment

for firefighters

Wear self-contained breathing apparatus for firefighting if

necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

: Use personal protective equipment.

Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Evacuate personnel to safe areas. Ensure adequate ventilation. Remove all sources of ignition.

Prevent further leakage or spillage if safe to do so. **Environmental precautions**

If the product contaminates rivers and lakes or drains, inform

respective authorities.

Prevent product from entering drains.

Methods and materials for : Wipe up with absorbent material (e.g. cloth, fleece).

containment and cleaning up

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Avoid contact with skin and eyes.

For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the

application area.

Always replace cap after use.

Dispose of rinse water in accordance with local and national

regulations.

Do not breathe vapours or spray mist.

Avoid exposure - obtain special instructions before use. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms.

Conditions for safe storage : BEWARE: Aerosol is pressurized. Keep away from direct sun

exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use. Do not spray on flames or

red-hot objects. No smoking.

Observe label precautions.

Electrical installations / working materials must comply with

the technological safety standards.

Keep in a dry, cool and well-ventilated place.

Materials to avoid : Do not store near acids.

Strong oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

| Components | CAS-No. | Value type (Form of exposure) | Control Basis parameters / Permissible concentration | |
|------------|----------|-------------------------------------|--|-----------|
| ethanol | 64-17-5 | TWA | 1,000 ppm | ACGIH |
| | | TWA | 1,000 ppm 1,900 mg/m3 | NIOSH REL |
| | | TWA | 1,000 ppm 1,900 mg/m3 | OSHA Z-1 |
| | | TWA | 1,000 ppm 1,900 mg/m3 | OSHA P0 |
| | | STEL | 1,000 ppm | ACGIH |
| | | PEL | 1,000 ppm 1,900 mg/m3 | CAL PEL |
| butane | 106-97-8 | TWA | 800 ppm 1,900 mg/m3 | NIOSH REL |
| | | TWA | 800 ppm 1,900 mg/m3 | OSHA P0 |
| | | PEL | 800 ppm 1,900 mg/m3 | CAL PEL |
| | | STEL | 1,000 ppm | ACGIH |

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| 2-butoxyethanol | 111-76-2 | TWA | 20 ppm | ACGIH |
|-----------------|----------|------|--------------------------|-----------|
| | | TWA | 5 ppm 24 mg/m3 | NIOSH REL |
| | | TWA | 50 ppm 240 mg/m3 | OSHA Z-1 |
| | | TWA | 25 ppm 120 mg/m3 | OSHA P0 |
| | | PEL | 20 ppm 97 mg/m3 | CAL PEL |
| 2-aminoethanol | 141-43-5 | TWA | 3 ppm | ACGIH |
| | | STEL | 6 ppm | ACGIH |
| | | TWA | 3 ppm 8 mg/m3 | NIOSH REL |
| | | ST | 6 ppm 15 mg/m3 | NIOSH REL |
| | | TWA | 3 ppm 6 mg/m3 | OSHA Z-1 |
| | | STEL | 6 ppm 15 mg/m3 | OSHA P0 |
| | | TWA | 3 ppm 8 mg/m3 | OSHA P0 |
| | | PEL | 3 ppm 8 mg/m3 | CAL PEL |
| | | STEL | 6 ppm 15 mg/m3 | CAL PEL |
| propan-2-ol | 67-63-0 | TWA | 200 ppm | ACGIH |
| | | STEL | 400 ppm | ACGIH |
| | | TWA | 400 ppm 980 mg/m3 | NIOSH REL |
| | | ST | 500 ppm 1,225 mg/m3 | NIOSH REL |
| | | TWA | 400 ppm 980 mg/m3 | OSHA Z-1 |
| | | TWA | 400 ppm 980 mg/m3 | OSHA P0 |
| | | STEL | 500 ppm 1,225 mg/m3 | OSHA P0 |
| | | PEL | 400 ppm 980 mg/m3 | CAL PEL |
| | | STEL | 500 ppm 1,225 mg/m3 | CAL PEL |
| propane | 74-98-6 | TWA | 1,000 ppm 1,800 mg/m3 | NIOSH REL |
| | | TWA | 1,000 ppm 1,800 mg/m3 | OSHA Z-1 |
| | | TWA | 1,000 ppm 1,800 mg/m3 | OSHA P0 |
| | | PEL | 1,000 ppm 1,800 mg/m3 | CAL PEL |

Biological occupational exposure limits

| Component | CAS-No. | Control | Biological | Sampling | Permissible | Basis |
|-----------------|----------|-------------------------|------------|------------------|------------------------|-----------|
| | | parameters | specimen | time | concentration | |
| 2-BUTOXYETHANOL | 111-76-2 | Butoxyacetic acid (BAA) | Urine | End of shift (As | 200.mg/g Creatinine | ACGIH BEI |
| | | | | soon as | | |

| | | | | possible after exposure ceases) | | |
|-------------|---------|---------|-------|--|---------|-----------|
| PROPAN-2-OL | 67-63-0 | Acetone | Urine | End of shift at end of workwee k | 40 mg/l | ACGIH BEI |

Engineering measures : effective ventilation in all processing areas

Personal protective equipment

Respiratory protection : Use respiratory protection unless adequate local exhaust

ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Hand protection

Material : Protective gloves

Remarks : The suitability for a specific workplace should be discussed

with the producers of the protective gloves.

Eye protection : Tightly fitting safety goggles

Ensure that eyewash stations and safety showers are close to

the workstation location.

Skin and body protection : Impervious clothing

Choose body protection according to the amount and

concentration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink.

When using do not smoke.

Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Aerosol containing a liquefied gas

Colour : colourless
Odour : characteristic
Odour Threshold : No data available

pH : 10.5 - 11.5

Melting point/freezing point : No data available Boiling point : Not applicable

Flash point

Not applicable

Evaporation rate : < 1

n-Butyl Acetate = 1.0

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Flammability (solid, gas,

liquid)

: The product is not flammable.

Upper explosion limit : Not applicable
Lower explosion limit : Not applicable
Vapour pressure : No data available
Relative vapour density : No data available

Density : 0.97 g/cm3

Solubility(ies)

Water solubility : soluble

Solubility in other solvents : not determined

Partition coefficient: n-

octanol/water

: No data available

Auto-ignition temperature : not determined

Thermal decomposition : No data available

Viscosity

Viscosity, kinematic : No data available

Heat of combustion : < 20 kJ/g

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Stable

Chemical stability : Stable under normal conditions.

Possibility of hazardous

reactions

: Vapours may form explosive mixture with air.

No decomposition if stored and applied as directed.

Conditions to avoid : Heat, flames and sparks.

Extremes of temperature and direct sunlight.

Incompatible materials : Acids

Strong oxidizing agents

Hazardous decomposition

products

: Carbon monoxide, carbon dioxide and unburned

hydrocarbons (smoke). Nitrogen oxides (NOx)

SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects

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Aggravated Medical

Condition

: None known.

Symptoms of Overexposure

: Effects are immediate and delayed.

Symptoms may include irritation, redness, pain, and rash.

Causes skin irritation.

Causes serious eye irritation.

Review section 2 of SDS to see all potential hazards. Treat symptomatically. Symptoms may be delayed.

Carcinogenicity:

IARC No component of this product present at levels greater than or

equal to 0.1% is identified as probable, possible or confirmed

human carcinogen by IARC.

ACGIH Confirmed animal carcinogen with unknown relevance to

humans

ethanol 64-17-5

2-butoxyethanol 111-76-2

OSHA No component of this product present at levels greater than or

equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No component of this product present at levels greater than or

equal to 0.1% is identified as a known or anticipated carcinogen

by NTP.

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg

Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate : 22.33 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : > 5,000 mg/kg

Method: Calculation method

Components:

ethanol:

Acute oral toxicity : LD50 Oral Rat: 7,060 mg/kg

Acute inhalation toxicity : LC50 Rat: 124.7 mg/l

Exposure time: 4 h
Test atmosphere: vapour

2-butoxyethanol:

Acute oral toxicity : LD50 Oral Rat: 880 mg/kg

Acute dermal toxicity : LD50 Dermal Rabbit: 1,060 mg/kg

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2-aminoethanol:

Acute oral toxicity : LD50 Oral Mouse: 700 mg/kg

LD50 Oral Rat: 1,515 mg/kg

Acute inhalation toxicity : LC50 Mouse: > 1.21 mg/l

propan-2-ol:

Acute oral toxicity : LD50 Oral Rat: 4,396 mg/kg

Method: Calculation method

Skin corrosion/irritation

Product:

Remarks: Irritating to skin.

Serious eye damage/eye irritation

Product:

Remarks: Severe eye irritation

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Aspiration toxicity

No data available

Further information

Product:

Remarks: No data available

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SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

Product:

Partition coefficient: n-

octanol/water Components:

ethanol:

Partition coefficient: n-

octanol/water

butane:

Partition coefficient: n-

octanol/water 2-aminoethanol:

Partition coefficient: n-

octanol/water propan-2-ol:

Partition coefficient: n-

octanol/water

: Remarks: No data available

: Remarks: No data available

: Pow: 2.89

: log Pow: -1.31

: log Pow: 0.05

Mobility in soil

No data available

Other adverse effects

No data available

Product:

40 CFR Protection of Environment; Part 82 Protection of Regulation

Stratospheric Ozone - CAA Section 602 Class I

Substances

Remarks This product neither contains, nor was manufactured

with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A

+ B).

Additional ecological

information

: No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Do not dispose of waste into sewer.

Do not contaminate ponds, waterways or ditches with

chemical or used container.

Dispose of in accordance with local regulations.

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Contaminated packaging : Empty remaining contents.

Dispose of as unused product. Do not re-use empty containers.

Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

Transportation Regulation: 49 CFR (USA):

UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

Transportation Regulation: IMDG (Vessel):

UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

Transportation Regulation: IATA (Cargo Air):

UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

Transportation Regulation: IATA (Passenger Air):

UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

Transportation Regulation: TDG (Canada):

UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

The product as delivered to the customer conforms to packaging requirements for shipment by road under US Department of Transportation (DOT) regulations. Additional transportation classifications noted above are for reference only, and not a certification or warranty of the suitability of the packaging for shipment under these alternative transport regulations.

SECTION 15. REGULATORY INFORMATION

TSCA list : No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification

requirements.

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

| Components | CAS-No. | Component RQ (lbs) | Calculated product RQ (lbs) |
|---------------------|----------|--------------------|-----------------------------|
| 2,2'-iminodiethanol | 111-42-2 | 100 | * |

^{*:} Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Gases under pressure

Skin corrosion or irritation

Serious eye damage or eye irritation

SARA 302 : No chemicals in this material are subject to the reporting

requirements of SARA Title III, Section 302.

SARA 313 : The following components are subject to reporting levels

established by SARA Title III, Section 313:

2-butoxyethanol 111-76-2 3.9604 %

California Prop. 65



WARNING: This product can expose you to chemicals including 2,2'-iminodiethanol, which is/are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

The components of this product are reported in the following inventories:

DSL All components of this product are on the Canadian DSL

TSCA On TSCA Inventory

For information on the country notification status for other regions please contact the manufacturer's regulatory group.

Inventory Acronym and Validity Area Legend:

TSCA (USA), DSL (Canada), NDSL (Canada)

SECTION 16. OTHER INFORMATION

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Further information

NFPA:

| HEALTH | 2 |
|-----------------|---|
| FLAMMABILITY | 1 |
| INSTABILITY | 0 |
| SPECIAL HAZARD. | |

0 = not significant, 1 = Slight,

2 = Moderate, 3 = High

4 = Extreme

HMIS III:

| HEALTH | 2 |
|-----------------|---|
| FLAMMABILITY | 2 |
| PHYSICAL HAZARD | 3 |

0 = not significant, 1 = Slight,

2 = Moderate, 3 = High 4 = Extreme, * = Chronic

OSHA - GHS Label Information:

Hazard pictograms



Gas cylinder



Exclamation

Signal word Hazard statements

Contains gas under pressure; may explode if heated. Causes skin irritation. Causes serious eye irritation.

Precautionary statements

Prevention: Wash skin thoroughly after handling. Wear protective gloves/ eye protection/ face protection.

Response: IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention. Take off contaminated clothing and wash before reuse.

Storage: Protect from sunlight. Store in a well-ventilated place. Do not expose to temperatures exceeding 50 °C/ 122 °F.

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|----------------|------------|
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