

**A07304 ZEP PRO MIRROR & GLS R04701 20n18**

Version 1.0

Revision Date 01/29/2015

Print Date 03/31/2016

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Material name : A07304 ZEP PRO MIRROR &amp; GLS R04701 20n18

Material number : 000000000001042188

**Manufacturer or supplier's details**

Company : Zep Inc.

Address : 1310 Seaboard Industrial Blvd., NW  
Atlanta, GA 30318

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 Emergency** : CHEMTREC: 800-424-9300 - All Calls Recorded.  
In the District of Columbia 202-483-7616**SECTION 2. HAZARDS IDENTIFICATION****Emergency Overview**

|            |                                    |
|------------|------------------------------------|
| Appearance | Aerosol containing a liquefied gas |
| Colour     | clear, colourless                  |
| Odour      | pleasant                           |

**GHS Classification**

Gases under pressure : Liquefied gas

**GHS Label element**

Hazard pictograms :



Signal word : Warning

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

Precautionary statements : **Storage:**  
P410 + P403 Protect from sunlight. Store in a well-ventilated place.**Potential Health Effects****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.

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|              |                                                                                                                                             |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ACGIH</b> | Confirmed animal carcinogen with unknown relevance to humans<br>ethanol 64-17-5<br>2-butoxyethanol 111-76-2                                 |
| <b>OSHA</b>  | No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. |
| <b>NTP</b>   | 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.     |

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

**Hazardous components**

| Chemical Name   | CAS-No.  | Concentration [%] |
|-----------------|----------|-------------------|
| propane         | 74-98-6  | >= 1 - < 5        |
| ethanol         | 64-17-5  | >= 1 - < 5        |
| butane          | 106-97-8 | >= 1 - < 5        |
| 2-butoxyethanol | 111-76-2 | >= 1 - < 5        |

**SECTION 4. FIRST AID MEASURES**

|                         |                                                                                                                                                                                                                                                         |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General advice          | : Do not leave the victim unattended.                                                                                                                                                                                                                   |
| If inhaled              | : If unconscious place in recovery position and seek medical advice.<br>If symptoms persist, call a physician.                                                                                                                                          |
| In case of skin contact | : If skin irritation persists, call a physician.<br>If on skin, rinse well with water.<br>If on clothes, remove clothes.<br>Wash off immediately with plenty of water for at least 15 minutes.                                                          |
| In case of eye contact  | : Remove contact lenses.<br>Protect unharmed eye.<br>Keep eye wide open while rinsing.<br>If eye irritation persists, consult a specialist.<br>Flush eyes with water at least 15 minutes. Get medical attention if eye irritation develops or persists. |
| If swallowed            | : Clean mouth with water and drink afterwards plenty of water.<br>Keep respiratory tract clear.<br>Never give anything by mouth to an unconscious person.<br>Do NOT induce vomiting.                                                                    |

**SECTION 5. FIREFIGHTING MEASURES**

|                              |                                                                            |
|------------------------------|----------------------------------------------------------------------------|
| Suitable extinguishing media | : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
|------------------------------|----------------------------------------------------------------------------|

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|                                               |                                                                                                           |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Unsuitable extinguishing media                | : High volume water jet                                                                                   |
| Hazardous combustion products                 | : Carbon dioxide (CO <sub>2</sub> )<br>Carbon monoxide<br>Smoke                                           |
| Specific extinguishing methods                | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Further information                           | : Standard procedure for chemical fires.                                                                  |
| 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.                    |
| Environmental precautions                                           | : Prevent further leakage or spillage if safe to do so. |
| Methods and materials for containment and cleaning up               | : Neutralise with acid.                                 |

**SECTION 7. HANDLING AND STORAGE**

|                             |                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Advice on safe handling     | : Avoid contact with skin and eyes.<br>For personal protection see section 8.<br>Smoking, eating and drinking should be prohibited in the application area.<br>Dispose of rinse water in accordance with local and national regulations.                                                                                                                                          |
| 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.<br>Keep in a cool, well-ventilated place.<br>Observe label precautions.<br>Electrical installations / working materials must comply with the technological safety standards. |
| Materials to avoid          | : Oxidizing agents                                                                                                                                                                                                                                                                                                                                                                |

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Components with workplace control parameters**

| Components | CAS-No. | Value type<br>(Form of exposure) | Control parameters /<br>Permissible concentration | Basis |
|------------|---------|----------------------------------|---------------------------------------------------|-------|
|            |         |                                  |                                                   |       |

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|                 |          |     |                          |           |
|-----------------|----------|-----|--------------------------|-----------|
| propane         | 74-98-6  | TWA | 1,000 ppm                | ACGIH     |
|                 |          | TWA | 1,000 ppm<br>1,800 mg/m3 | NIOSH REL |
|                 |          | TWA | 1,000 ppm<br>1,800 mg/m3 | OSHA Z-1  |
|                 |          | TWA | 1,000 ppm<br>1,800 mg/m3 | OSHA P0   |
| ethanol         | 64-17-5  | TWA | 1,000 ppm                | ACGIH     |
|                 |          | TWA | 1,000 ppm<br>1,900 mg/m3 | NIOSH REL |
|                 |          | TWA | 1,000 ppm<br>1,900 mg/m3 | OSHA Z-1  |
|                 |          | TWA | 1,000 ppm<br>1,900 mg/m3 | OSHA P0   |
| butane          | 106-97-8 | TWA | 800 ppm<br>1,900 mg/m3   | NIOSH REL |
|                 |          | TWA | 800 ppm<br>1,900 mg/m3   | OSHA P0   |
| 2-butoxyethanol | 111-76-2 | TWA | 20 ppm                   | ACGIH     |
|                 |          | TWA | 5 ppm<br>24 mg/m3        | NIOSH REL |
|                 |          | TWA | 50 ppm<br>240 mg/m3      | OSHA Z-1  |
|                 |          | TWA | 25 ppm<br>120 mg/m3      | OSHA P0   |

## Biological occupational exposure limits

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

## Personal protective equipment

- Respiratory protection : In the case of vapour formation use a respirator with an approved filter.  
In the case of dust or aerosol formation use respirator with an approved filter.
- Hand protection : The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Eye protection : Eye wash bottle with pure water  
Tightly fitting safety goggles
- Skin and body protection : impervious clothing  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

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Hygiene measures : When using do not eat or drink.  
When using do not smoke.  
Wash hands before breaks and at the end of workday.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : Aerosol containing a liquefied gas

Colour : clear, colourless

Odour : pleasant

Odour Threshold : no data available

pH : 10 - 11

Melting point/freezing point : no data available

Boiling point : 96.11 °C

Flash point :  
not applicable

Evaporation rate : > 1

Upper explosion limit : no data available

Lower explosion limit : no data available

Vapour pressure : no data available

Relative vapour density : no data available

Density : 0.95 g/cm<sup>3</sup>

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

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**SECTION 10. STABILITY AND REACTIVITY**

Reactivity : Stable

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : No decomposition if stored and applied as directed.

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|                                  |                                                                                               |
|----------------------------------|-----------------------------------------------------------------------------------------------|
| Conditions to avoid              | : Heat, flames and sparks.                                                                    |
| Incompatible materials           | : Strong oxidizing agents                                                                     |
| Hazardous decomposition products | : Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).<br>Nitrogen oxides (NOx) |

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**SECTION 11. TOXICOLOGICAL INFORMATION****Acute toxicity****Product:**

|                           |                                                                                                                         |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Acute oral toxicity       | : Acute toxicity estimate : > 5,000 mg/kg<br>Method: Calculation method                                                 |
| Acute inhalation toxicity | : Acute toxicity estimate : > 10 mg/l<br>Exposure time: 4 h<br>Test atmosphere: dust/mist<br>Method: Calculation method |
| Acute dermal toxicity     | : Acute toxicity estimate : > 5,000 mg/kg<br>Method: Calculation method                                                 |

**Skin corrosion/irritation****Product:**

Remarks: May cause skin irritation and/or dermatitis.

**Serious eye damage/eye irritation****Product:**

Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin.

**Respiratory or skin sensitisation**

no data available

**Germ cell mutagenicity**

no data available

**Carcinogenicity**

no data available

**Reproductive toxicity**

no data available

propane:  
ethanol:  
butane:  
2-butoxyethanol:

**STOT - single exposure**

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no data available

**STOT - repeated exposure**

no data available

**Aspiration toxicity**

no data available

**Further information****Product:**

Remarks: no data available

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 : Remarks: no data available**Components:****butane :**Partition coefficient: n-  
octanol/water : Pow: 2.89**Mobility in soil**

no data available

**Other adverse effects**

no data available

**Product:****Regulation**40 CFR Protection of Environment; Part 82 Protection of  
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

no data available

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**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

- Waste from residues : Dispose of in accordance with local regulations.
- Do not dispose of waste into sewer.  
Do not contaminate ponds, waterways or ditches with chemical or used container.
- 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.

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**SECTION 14. TRANSPORT INFORMATION****International regulation****IATA-DGR**

- UN/ID No. : 1950
- Proper shipping name : Aerosols, non-flammable
- Class : 2.2
- Packing group : Not Assigned
- Labels : 2.2
- Packing instruction (cargo aircraft) : 203
- Packing instruction (passenger aircraft) : 203

**IMDG-Code**

- UN number : 1950
- Proper shipping name : AEROSOLS
- Class : 2.2
- Packing group : Not Assigned
- Labels : 2.2
- EmS Code : F-D, S-U
- Marine pollutant : no

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**National Regulations****49 CFR**

- UN/ID/NA number : 1950
- Proper shipping name : Aerosols, non-flammable
- Class : 2.2
- Packing group : Not Assigned



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Labels : 2.2  
ERG Code : 126  
Marine pollutant : no

**Special precautions for user**

not applicable

**SECTION 15. REGULATORY INFORMATION****EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

| Components          | CAS-No.  | Component RQ<br>(lbs) | Calculated product RQ<br>(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** : Sudden Release of Pressure Hazard**SARA 302** : SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.**SARA 313** : SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.**California Prop 65** WARNING! This product contains a chemical known to the State of California to cause cancer.

2,2'-iminodiethanol

111-42-2

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

**TSCA** On TSCA Inventory  
**DSL** This product contains one or several components that are not on the Canadian DSL nor NDSL.  
**AICS** Not in compliance with the inventory  
**NZIoC** Not in compliance with the inventory  
**PICCS** Not in compliance with the inventory  
**IECSC** Not in compliance with the inventory

**Inventory Acronym and Validity Area Legend:**

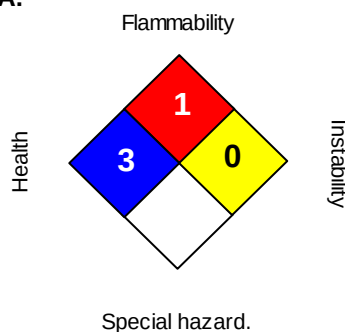
AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

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**SECTION 16. OTHER INFORMATION****Further information****NFPA:****HMIS III:**

|                        |          |
|------------------------|----------|
| <b>HEALTH</b>          | <b>3</b> |
| <b>FLAMMABILITY</b>    | <b>0</b> |
| <b>PHYSICAL HAZARD</b> | <b>2</b> |

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

**OSHA GHS Label Information:**

Hazard pictograms

:



Signal word

: **Warning:**

Hazard statements

: Contains gas under pressure; may explode if heated.

Precautionary statements

:

**Storage:** Protect from sunlight. Store in a well-ventilated place.

We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. Users should make their own investigations to determine the suitability and applicability of the information for their particular purposes. This SDS has been prepared by the Compliance Services organization supporting this manufacturer, supplier or distributor.

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