

A07244 ZEP PRO FMG HD DGR R06701 20n18

Version 1.1

Revision Date 01/29/2015

Print Date 06/01/2015

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : A07244 ZEP PRO FMG HD DGR R06701 20n18

Material number : 00000000001042221

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 | colourless |
| Odour | characteristic |

GHS ClassificationFlammable aerosols : Category 2
Gases under pressure : Liquefied gas
Skin irritation : Category 2
Eye irritation : Category 2A**GHS Label element**

Hazard pictograms :



Signal word : Warning

Hazard statements : H223 Flammable aerosol.
H280 Contains gas under pressure; may explode if heated.
H315 Causes skin irritation.
H319 Causes serious eye irritation.Precautionary statements : **Prevention:**
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Pressurized container: Do not pierce or burn, even after

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use.

P264 Wash skin thoroughly after handling.

P280 Wear eye protection/ face protection.

P280 Wear protective gloves.

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 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

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.

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 identified as a carcinogen or potential carcinogen by OSHA.

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.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

| Chemical Name | CAS-No. | Concentration [%] |
|-----------------|----------|-------------------|
| ethanol | 64-17-5 | >= 10 - < 20 |
| 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 |

SECTION 4. FIRST AID MEASURES

General advice : Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

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- | | |
|-------------------------|---|
| If inhaled | : If unconscious place in recovery position and seek medical advice. |
| 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. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist. Immediately flush eyes for at least 15 minutes. Get medical attention. |
| If swallowed | : Keep respiratory tract clear. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. DO NOT induce vomiting unless directed to do so by a physician or poison control center. |
-

SECTION 5. FIREFIGHTING MEASURES

- | | |
|---|--|
| Suitable extinguishing media | : Dry chemical Foam Water spray |
| Unsuitable extinguishing media | : High volume water jet |
| Hazardous combustion products | : Carbon dioxide (CO ₂) Carbon monoxide Smoke Nitrogen oxides (NO _x) |
| Specific extinguishing methods | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Further information | : For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers. |
| 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. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. |
| Environmental precautions | : Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. |
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If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up : Neutralise with acid.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.

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.
Keep container tightly closed in a dry and well-ventilated place.
Observe label precautions.
Electrical installations / working materials must comply with the technological safety standards.

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 parameters / Permissible concentration | Basis |
|-----------------|----------|----------------------------------|---|-----------|
| ethanol | 64-17-5 | TWA | 1,000 ppm | ACGIH |
| | | | 1,000 ppm 1,900 mg/m ³ | NIOSH REL |
| | | TWA | 1,000 ppm 1,900 mg/m ³ | OSHA Z-1 |
| | | TWA | 1,000 ppm 1,900 mg/m ³ | OSHA P0 |
| butane | 106-97-8 | TWA | 800 ppm 1,900 mg/m ³ | NIOSH REL |
| | | TWA | 800 ppm 1,900 mg/m ³ | OSHA P0 |
| 2-butoxyethanol | 111-76-2 | TWA | 20 ppm | ACGIH |
| | | | 5 ppm 24 mg/m ³ | NIOSH REL |
| | | TWA | 50 ppm 240 mg/m ³ | OSHA Z-1 |
| | | TWA | 25 ppm 120 mg/m ³ | OSHA P0 |
| 2-aminoethanol | 141-43-5 | TWA | 3 ppm | ACGIH |
| | | STEL | 6 ppm | ACGIH |

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| | | | | |
|-------------|---------|------|--------------------------------------|-----------|
| | | TWA | 3 ppm 8 mg/m ³ | NIOSH REL |
| | | ST | 6 ppm 15 mg/m ³ | NIOSH REL |
| | | TWA | 3 ppm 6 mg/m ³ | OSHA Z-1 |
| | | STEL | 6 ppm 15 mg/m ³ | OSHA P0 |
| | | TWA | 3 ppm 8 mg/m ³ | OSHA P0 |
| propan-2-ol | 67-63-0 | TWA | 200 ppm | ACGIH |
| | | STEL | 400 ppm | ACGIH |
| | | TWA | 400 ppm 980 mg/m ³ | NIOSH REL |
| | | ST | 500 ppm 1,225 mg/m ³ | NIOSH REL |
| | | TWA | 400 ppm 980 mg/m ³ | OSHA Z-1 |
| | | TWA | 400 ppm 980 mg/m ³ | OSHA P0 |
| | | STEL | 500 ppm 1,225 mg/m ³ | OSHA P0 |
| propane | 74-98-6 | TWA | 1,000 ppm | ACGIH |
| | | TWA | 1,000 ppm 1,800 mg/m ³ | NIOSH REL |
| | | TWA | 1,000 ppm 1,800 mg/m ³ | OSHA Z-1 |
| | | TWA | 1,000 ppm 1,800 mg/m ³ | 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 | | | | | | |
| PROPAN-2-OL | 67-63-0 | Acetone | Urine | End of shift at end of workweek | 40 mg/l | ACGIH BEI |

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.
In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection
Remarks : The suitability for a specific workplace should be discussed

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with the producers of the protective gloves.

| | |
|--------------------------|---|
| Eye protection | : Eye wash bottle with pure water Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems. |
| 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 | : 98.3 °C |
| Flash point | : not applicable |
| Evaporation rate | : < 1 |
| Upper explosion limit | : not applicable |
| Lower explosion limit | : not applicable |
| Vapour pressure | : not applicable |
| Relative vapour density | : no data available |
| Density | : 0.97 g/cm ³ |
| Solubility(ies) | |
| Water solubility | : soluble |
| 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 | : Vapours may form explosive mixture with air. |
| Conditions to avoid | : Heat, flames and sparks. |
| Incompatible materials | : Acids Strong oxidizing agents |
| Hazardous decomposition products | : Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). Nitrogen oxides (NOx) |

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

| | |
|---------------------------|---|
| Acute oral toxicity | : Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method |
| Acute inhalation toxicity | : Acute toxicity estimate : > 10 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 |

Skin corrosion/irritation**Product:**

Remarks: May cause skin irritation in susceptible persons.

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

Remarks: Irritating to eyes.

Respiratory or skin sensitisation

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

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Reproductive toxicity

no data available

ethanol:
butane:
2-butoxyethanol:
2-aminoethanol:
propan-2-ol:
propane:

STOT - single exposure

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

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

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| | |
|-----------------------------------|---|
| Remarks | Stratospheric Ozone - CAA Section 602 Class I Substances 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 |

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. Send to a licensed waste management company. |
| 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
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 |

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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
 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 (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 : Acute Health Hazard
 Sudden Release of Pressure Hazard
 Fire 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
 WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive

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methanol
harm.

67-56-1

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 |

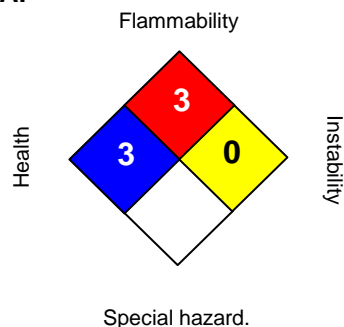
Inventory Acronym and Validity Area Legend:

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

SECTION 16. OTHER INFORMATION

Further information

NFPA:



HMIS III:

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

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

OSHA GHS Label Information:

Hazard pictograms



Signal word

: **Warning:**

Hazard statements

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

Precautionary statements

Prevention: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Wash skin thoroughly after handling. Wear eye protection/ face protection. Wear protective gloves.
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. Do not expose to temperatures exceeding 50 °C/ 122

°F.

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