

BZ7384 GLASS CLNR RTU R04601 12QT/CS

Version 2.5

Revision Date 02/13/2018

Print Date 06/15/2020

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : BZ7384 GLASS CLNR RTU R04601 12QT/CS

Material number : 00000000001041425

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**

Recommended use : Glass Cleaner

SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

| | |
|------------|------------|
| Appearance | liquid |
| Colour | light blue |
| Odour | pleasant |

GHS Classification

Flammable liquids : Category 4

GHS label elements

Signal word : Warning

Hazard statements : H227 Combustible liquid.

Precautionary statements : **Prevention:**
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280 Wear protective gloves/ eye protection/ face protection.

Response:
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:
P403 Store in a well-ventilated place.

Disposal:
P501 Dispose of contents/container in accordance with local regulation.

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

| Chemical name | CAS-No. | Concentration [%] |
|-----------------|----------|-------------------|
| 2-butoxyethanol | 111-76-2 | >= 1 - < 5 |

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

SECTION 4. FIRST AID MEASURES

- General advice : Do not leave the victim unattended.
Get medical attention.
Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
- 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.
Remove contaminated clothing and shoes.
Wash contaminated clothing before reuse.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
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.
- Most important symptoms and effects, both acute and delayed : Effects may be delayed, symptoms may include minor eye or skin irritation.
Overexposure may cause mild eye or skin irritation.
- Notes to physician : Treat symptomatically. Symptoms may be delayed.

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 (CO₂)
Carbon monoxide
Smoke
- 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.
- Environmental precautions : Prevent further leakage or spillage if safe to do so.
Prevent product from entering drains.
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Avoid formation of aerosol.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Provide sufficient air exchange and/or exhaust in work rooms.
Dispose of rinse water in accordance with local and national regulations.
- Conditions for safe storage : No smoking.
Keep in a well-ventilated place.
Observe label precautions.
Electrical installations / working materials must comply with the technological safety standards.
- Materials to avoid : Oxidizing agents
Do not store near acids.
Do not freeze.

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

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|-----------------|----------|----------------------------------|---------------------------------------------------|-----------|
| 2-butoxyethanol | 111-76-2 | TWA | 20 ppm | ACGIH |
| | | TWA | 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 |
| | | PEL | 20 ppm 97 mg/m ³ | CAL PEL |

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 Creatinine | 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

: Safety glasses

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.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|----------------------------------------|-----------------------------------------------|
| Appearance | : liquid |
| Colour | : light blue |
| Odour | : pleasant |
| Odour Threshold | : No data available |
| pH | : 10.5 - 11.5 |
| Melting point/freezing point | : No data available |
| Boiling point | : 100 °C |
| Flash point | : 61.4 °C Method: closed cup |
| 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 | : 0.996 g/cm ³ |
| Bulk density | : No data available |
| Solubility(ies) | |
| Water solubility | : soluble in cold water, soluble in hot water |
| Solubility in other solvents | : soluble |
| Partition coefficient: n-octanol/water | : No data available |
| Auto-ignition temperature | : No data available |
| Thermal decomposition | : No data available |
| Viscosity | |
| Viscosity, dynamic | : No data available |
| Viscosity, kinematic | : 3.6 mm ² /s (20 °C) |

SECTION 10. STABILITY AND REACTIVITY

| | |
|--------------------------|-------------------------------------------------------|
| Reactivity | : Stable |
| Chemical stability | : Stable under normal conditions. |
| Possibility of hazardous | : No decomposition if stored and applied as directed. |

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| | |
|----------------------------------|----------------------------------------------------------------------|
| reactions | Vapours may form explosive mixture with air. |
| Conditions to avoid | : Heat, flames and sparks. |
| Incompatible materials | : Strong oxidizing agents Acids |
| Hazardous decomposition products | : Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). |

SECTION 11. TOXICOLOGICAL INFORMATION
Potential Health Effects

| | |
|------------------------------|------------------------------------------------------------------------------|
| Aggravated Medical Condition | : None known. |
| Symptoms of Overexposure | : Effects may be delayed, symptoms may include minor eye or skin irritation. |

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 2-butoxyethanol 111-76-2 ethanol 64-17-5 |
| 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 : > 200 mg/l Exposure time: 4 h Test atmosphere: vapour Method: Calculation method |
| Acute dermal toxicity | : Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method |

Components:

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2-butoxyethanol:

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

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

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

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Aspiration toxicity

No data available

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

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No data available

Bioaccumulative potential**Product:**

Partition coefficient: n- octanol/water : Remarks: No data available

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

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.

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): NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL |
|----------------------------------------------------------------------------------------------------|

| |
|-----------------------------------------------------------------------------------------------------|
| Transportation Regulation: IMDG (Vessel): NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL |
|-----------------------------------------------------------------------------------------------------|

| |
|--------------------------------------------------------------------------------------------------------|
| Transportation Regulation: IATA (Cargo Air): NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL |
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SAFETY DATA SHEET



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Transportation Regulation: IATA (Passenger Air):
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

Transportation Regulation: TDG (Canada):
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

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) |
|---------------------------|-----------|--------------------|-----------------------------|
| ammonia, aqueous solution | 1336-21-6 | 1000 | * |

*: 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 : Flammable (gases, aerosols, liquids, or solids)

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 | 1.9987 % |
|-----------------|----------|----------|

California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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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.

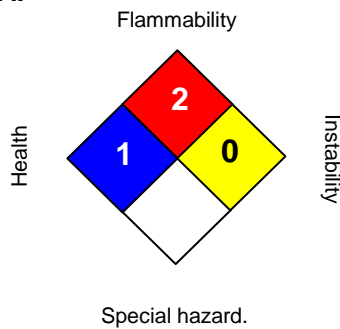
Inventory Acronym and Validity Area Legend:

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

SECTION 16. OTHER INFORMATION

Further information

NFPA:



HMIS III:

| | |
|------------------------|----------|
| HEALTH | 0 |
| FLAMMABILITY | 2 |
| PHYSICAL HAZARD | 0 |

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

OSHA - GHS Label Information:

Signal word : **Warning:**
 Hazard statements : Combustible liquid.
 Precautionary statements :
Prevention: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear protective gloves/ eye protection/ face protection.
Response: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
Storage: Store in a well-ventilated place.
Disposal: Dispose of contents/container in accordance with local regulation.

| | |
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Zep Inc. markets products under well recognized and established brand names such as Zep®, Zep Commercial®, Zep Professional®, Enforcer®, National Chemical™, Selig™, Misty®, Next Dimension™, Petro®, i-Chem®, TimeMist®, TimeWick™, MicrobeMax®, Country Vet®, Konk®, Original Bike Spirits®, Blue Coral®, Black Magic®, Rain-X®, Niagara National™, FC Forward Chemicals®, Rexodan®, Mykal™, and a number of private labeled brands.