

Zep Twister Aero DZ

Version 2.0

Revision Date 09/24/2015

Print Date 10/31/2017

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : Zep Twister Aero DZ
 Material number : 00000000000006501

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 compressed gas |
| Colour | amber |
| Odour | solvent-like |

GHS Classification

Flammable aerosols : Category 1
 Gases under pressure : Compressed gas
 Skin irritation : Category 2
 Serious eye damage : Category 1
 Skin sensitisation : Category 1
 Germ cell mutagenicity : Category 1B
 Carcinogenicity : Category 2

GHS Label element

Hazard pictograms :



Signal word : Danger

Hazard statements : H222 Extremely flammable aerosol.
 H280 Contains gas under pressure; may explode if heated.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.
 H340 May cause genetic defects.
 H351 Suspected of causing cancer.

Zep Twister Aero DZ

Version 2.0

Revision Date 09/24/2015

Print Date 10/31/2017

Precautionary statements : **Prevention:**
 P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.
 P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
 P211 Do not spray on an open flame or other ignition source.
 P251 Pressurized container: Do not pierce or burn, even after use.
 P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
 P264 Wash skin thoroughly after handling.
 P272 Contaminated work clothing should not be allowed out of the workplace.
 P280 Wear eye protection/ face protection.
 P280 Wear protective gloves.
 P281 Use personal protective equipment as required.
Response:
 P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
 P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
 P308 + P313 IF exposed or concerned: Get medical advice/ attention.
 P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
 P362 Take off contaminated clothing and wash before reuse.
Storage:
 P405 Store locked up.
 P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.
Disposal:
 Dispose of contents/container in accordance with local regulation.

Potential Health Effects**Carcinogenicity:**

| | | |
|--------------|---|----------|
| IARC | Group 2B: Possibly carcinogenic to humans | |
| | ethylbenzene | 100-41-4 |
| ACGIH | Confirmed animal carcinogen with unknown relevance to humans | |
| | ethylbenzene | 100-41-4 |
| 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 : Chemical Mixture

Hazardous components

Zep Twister Aero DZ

Version 2.0

Revision Date 09/24/2015

Print Date 10/31/2017

| Chemical Name | CAS-No. | Concentration [%] |
|--|------------|-------------------|
| Solvent naphtha (petroleum), heavy arom. | 64742-94-5 | >= 20 - < 30 |
| Distillates (petroleum), hydrotreated light | 64742-47-8 | >= 10 - < 20 |
| Petroleum Distillates | 64742-96-7 | >= 10 - < 20 |
| Distillates (petroleum), straight-run middle | 64741-44-2 | >= 10 - < 20 |
| xylenes | 1330-20-7 | >= 10 - < 20 |
| ethanol | 64-17-5 | >= 5 - < 10 |
| ethylbenzene | 100-41-4 | >= 1 - < 5 |
| carbon dioxide | 124-38-9 | >= 1 - < 5 |

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- If inhaled : Consult a physician after significant exposure.
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.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
- 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.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Alcohol-resistant foam
Carbon dioxide (CO₂)
Dry chemical
- 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.

Zep Twister Aero DZ

Version 2.0

Revision Date 09/24/2015

Print Date 10/31/2017

- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
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.
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Sweep up or vacuum up spillage and collect in suitable container for disposal.
-

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Take precautionary measures against static discharges.
Provide sufficient air exchange and/or exhaust in work rooms.
Open drum carefully as content may be under pressure.
Dispose of rinse water in accordance with local and national regulations.
Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
- Conditions for safe storage : Observe label precautions.
- 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.
-

Zep Twister Aero DZ

Version 2.0

Revision Date 09/24/2015

Print Date 10/31/2017

No smoking.
 Keep in a cool, well-ventilated place.
 Containers which are opened must be carefully resealed and kept upright to prevent leakage.
 Observe label precautions.
 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 (Form of exposure) | Control parameters / Permissible concentration | Basis |
|--|------------|----------------------------------|---|-----------|
| Distillates (petroleum), hydrotreated light | 64742-47-8 | TWA | 500 ppm 2,000 mg/m ³ | OSHA Z-1 |
| | | | | |
| xylenes | 1330-20-7 | TWA | 400 ppm 1,600 mg/m ³ | OSHA P0 |
| | | | | |
| ethanol | 64-17-5 | TWA | 100 ppm | ACGIH |
| | | | | |
| | | STEL | 150 ppm | ACGIH |
| | | | | |
| | | TWA | 1,000 ppm | ACGIH |
| | | | | |
| | | TWA | 1,000 ppm 1,900 mg/m ³ | NIOSH REL |
| | | | | |
| | | TWA | 1,000 ppm 1,900 mg/m ³ | OSHA Z-1 |
| | | | | |
| ethylbenzene | 100-41-4 | TWA | 1,000 ppm 1,900 mg/m ³ | OSHA P0 |
| | | | | |
| | | TWA | 100 ppm | ACGIH |
| | | | | |
| | | STEL | 125 ppm | ACGIH |
| | | | | |
| | | TWA | 100 ppm 435 mg/m ³ | NIOSH REL |
| | | | | |
| | | ST | 125 ppm 545 mg/m ³ | NIOSH REL |
| | | | | |
| | | TWA | 100 ppm 435 mg/m ³ | OSHA Z-1 |
| | | | | |
| | | TWA | 100 ppm 435 mg/m ³ | OSHA P0 |
| | | | | |
| | | STEL | 125 ppm 545 mg/m ³ | OSHA P0 |
| | | | | |
| carbon dioxide | 124-38-9 | TWA | 5,000 ppm | ACGIH |
| | | | | |
| | | STEL | 30,000 ppm | ACGIH |
| | | | | |
| | | TWA | 5,000 ppm 9,000 mg/m ³ | NIOSH REL |
| | | | | |
| | | ST | 30,000 ppm 54,000 mg/m ³ | NIOSH REL |
| | | | | |
| | | TWA | 5,000 ppm 9,000 mg/m ³ | OSHA Z-1 |
| | | | | |
| | | TWA | 10,000 ppm 18,000 mg/m ³ | OSHA P0 |
| | | | | |
| | | STEL | 30,000 ppm 54,000 mg/m ³ | OSHA P0 |
| | | | | |

Zep Twister Aero DZ

Version 2.0

Revision Date 09/24/2015

Print Date 10/31/2017

Biological occupational exposure limits

| Component | CAS-No. | Control parameters | Biological specimen | Sampling time | Permissible concentration | Basis |
|---------------------|----------|--|---------------------|---------------------------------|---------------------------|-----------|
| ETHYLBENZENE | 100-41-4 | Sum of mandelic acid and phenyl glyoxylic acid | Urine | End of shift at end of workweek | 700 mg/g | ACGIH BEI |
| Remarks: Creatinine | | | | | | |
| ETHYLBENZENE | | Ethylbenzene | In end-exhaled air | Not critical | | ACGIH BEI |

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
Remarks : Skin should be washed after contact. For prolonged or repeated contact use protective gloves. 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
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 compressed gas
- Colour : amber
- Odour : solvent-like
- Odour Threshold : No data available
No data available
- pH : Not applicable
- Melting point/freezing point : not determined
- Boiling point : Not applicable

Zep Twister Aero DZ

Version 2.0

Revision Date 09/24/2015

Print Date 10/31/2017

| | | |
|--|---|--|
| Flash point | : | Not applicable |
| Evaporation rate | : | No data available No data available |
| Flammability (solid, gas) | : | Extremely flammable aerosol. |
| Upper explosion limit | : | No data available No data available |
| Lower explosion limit | : | No data available |
| Vapour pressure | : | No data available |
| Relative vapour density | : | No data available No data available |
| Relative density | : | No data available |
| Density | : | 0.8625 g/cm ³ |
| Solubility(ies) | | |
| Water solubility | : | insoluble |
| Solubility in other solvents | : | not determined |
| Partition coefficient: n-octanol/water | : | No data available No data available |
| Auto-ignition temperature | : | not determined |
| Thermal decomposition | : | No data available |
| Viscosity | | |
| Viscosity, dynamic | : | No data available |
| Viscosity, kinematic | : | No data available |
| Heat of combustion | : | 41.63 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. |
| Conditions to avoid | : | Heat, flames and sparks. |
| Incompatible materials | : | Oxidizing agents |
| Hazardous decomposition products | : | Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). Nitrogen oxides (NO _x) |

Zep Twister Aero DZ

Version 2.0

Revision Date 09/24/2015

Print Date 10/31/2017

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

Acute inhalation toxicity : Acute toxicity estimate : 9.38 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:**Distillates (petroleum), hydrotreated light:**

Acute oral toxicity : LD50 Rat: > 5,000 mg/kg

Acute inhalation toxicity : LC50 Rat: > 4.6 mg/l
Exposure time: 6 h

Acute dermal toxicity : LD50 Rat: > 2,000 mg/kg

ethanol:

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

Acute inhalation toxicity : LC50 Rat: 124.7 mg/l
Exposure time: 4 h

Skin corrosion/irritation**Product:**

Remarks: Irritating to skin.

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

Remarks: May cause irreversible eye damage.

Respiratory or skin sensitisation**Product:**

Remarks: Causes sensitisation.

Germ cell mutagenicity

No data available

Carcinogenicity

Zep Twister Aero DZ

Version 2.0

Revision Date 09/24/2015

Print Date 10/31/2017

No data available

Reproductive toxicity

No data available

- Solvent naphtha (petroleum), heavy arom.:
- Distillates (petroleum), hydrotreated light:
- Petroleum Distillates:
- Distillates (petroleum), straight-run middle:
- xylenes:
- ethanol:
- ethylbenzene:
- carbon dioxide:

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

Remarks: No data available

Components:

Distillates (petroleum), hydrotreated light:

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

Remarks: No data available

Components:

Zep Twister Aero DZ

Version 2.0

Revision Date 09/24/2015

Print Date 10/31/2017

Solvent naphtha (petroleum), heavy arom. :

| | |
|--|----------------|
| Partition coefficient: n-octanol/water | : log Pow: 4.2 |
|--|----------------|

xylene :

| | |
|--|-------------|
| Partition coefficient: n-octanol/water | : Pow: 3.12 |
|--|-------------|

ethylbenzene :

| | |
|--|------------|
| Partition coefficient: n-octanol/water | : Pow: 3.6 |
|--|------------|

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

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Harmful to aquatic life with long lasting effects.

No data available

Components:**Distillates (petroleum), hydrotreated light :**

| | |
|-----------------------------------|---------------------|
| Additional ecological information | : No data available |
|-----------------------------------|---------------------|

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues

: The product should not be allowed to enter drains, water courses or the soil.

Do not contaminate ponds, waterways or ditches with chemical or used container.

Dispose of in accordance with local regulations.

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.

Zep Twister Aero DZ

Version 2.0

Revision Date 09/24/2015

Print Date 10/31/2017

SECTION 14. TRANSPORT INFORMATION

Transportation Regulation: 49 CFR (USA):
ORM-D, CONSUMER COMMODITY

Transportation Regulation: IMDG (Vessel):
UN1950, AEROSOLS, 2.1, - Limited quantity

Transportation Regulation: IATA (Cargo Air):
UN1950, Aerosols, flammable, 2.1, - Limited quantity

Transportation Regulation: IATA (Passenger Air):
UN1950, Aerosols, flammable, 2.1, - Limited quantity

Transportation Regulation: TDG (Canada):
UN1950, AEROSOLS, FLAMMABLE, 2.1, - Limited quantity

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) |
|------------|-----------|-----------------------|--------------------------------|
| xylenes | 1330-20-7 | 100 | 833 |

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
Chronic
Fire
Sudden Release of Pressure Hazard

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:
ethylbenzene 100-41-4

California Prop 65 WARNING! This product contains a chemical known to the State of California to cause cancer.
ethylbenzene 100-41-4

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

TSCA On TSCA Inventory

Zep Twister Aero DZ

Version 2.0

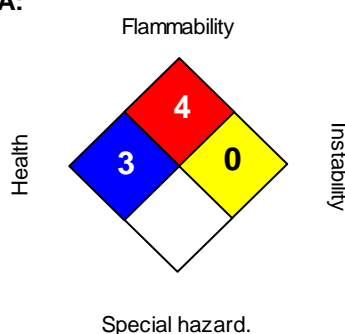
Revision Date 09/24/2015

Print Date 10/31/2017

| | |
|--------------|---|
| AICS | On the inventory, or in compliance with the inventory |
| NZIoC | Not in compliance with the inventory |
| PICCS | On the inventory, or in compliance with the inventory |
| IECSC | On the inventory, or 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), TCSI (Taiwan), TSCA (USA)

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

| | |
|------------------------|-----------|
| HEALTH | 3* |
| FLAMMABILITY | 4 |
| PHYSICAL HAZARD | 2 |

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

OSHA GHS Label Information:

Hazard pictograms



Signal word

: **Danger:**

Hazard statements

: Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. May cause genetic defects. Suspected of causing cancer.

Precautionary statements

: **Prevention:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Wash skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear eye protection/ face protection. Wear protective gloves. Use personal protective equipment as required.
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. Immediately call a POISON CENTER or doctor/ physician. IF exposed or concerned: Get medical advice/ attention. If skin irritation or rash occurs: Get medical advice/ attention. Take off contaminated clothing and wash before reuse.
Storage: Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.
Disposal: Dispose of contents/container in accordance with local regulation.

Version:

2.0

SAFETY DATA SHEET



Zep Twister Aero DZ

Version 2.0

Revision Date 09/24/2015

Print Date 10/31/2017

| | |
|----------------|------------|
| Revision Date: | 09/24/2015 |
| Print Date: | 10/31/2017 |

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.

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.