

## ZEP 45 DUAL FORCE AERO DZ

Version 1.5

Revision Date 03/20/2017

Print Date 01/11/2018

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : ZEP 45 DUAL FORCE AERO DZ

Material number : 000000000000374301

**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**Recommended use of the chemical and restrictions on use**

Recommended use : Lubricant

## SECTION 2. HAZARDS IDENTIFICATION

**Emergency Overview**

Appearance	Aerosol containing a compressed gas
Colour	amber
Odour	characteristic

**GHS Classification**Flammable aerosols : Category 1  
Gases under pressure : Compressed gas**GHS label elements**

Hazard pictograms :



Signal word : Danger

Hazard statements : H222 Extremely flammable aerosol.  
H280 Contains gas under pressure; may explode if heated.Precautionary statements : **Prevention:**  
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.  
**Storage:**

## ZEP 45 DUAL FORCE AERO DZ

Version 1.5

Revision Date 03/20/2017

Print Date 01/11/2018

P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.  
P403 Store in a well-ventilated place.

**Disposal:**

Dispose of contents/container in accordance with local regulation.

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

Substance / Mixture : Mixture

**Hazardous components**

Chemical name	CAS-No.	Concentration [%]
Distillates (petroleum), hydrotreated light	64742-47-8	>= 50 - < 70
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	>= 10 - < 20
Propanol, 1(or 2)-(2-methoxymethylethoxy)-, acetate	88917-22-0	>= 1 - < 5
carbon dioxide	124-38-9	>= 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 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.

**ZEP 45 DUAL FORCE AERO DZ**

Version 1.5

Revision Date 03/20/2017

Print Date 01/11/2018

---

**SECTION 5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical
- Unsuitable extinguishing media : 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 (CO<sub>2</sub>)  
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.  
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 or spray mist.  
Avoid exposure - obtain special instructions before use.  
Avoid contact with skin and eyes.  
For personal protection see section 8.
-

## ZEP 45 DUAL FORCE AERO DZ

Version 1.5

Revision Date 03/20/2017

Print Date 01/11/2018

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.  
 Dispose of rinse water in accordance with local and national regulations.  
 Always replace cap after use.

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.  
 Keep in a dry, cool and well-ventilated place.  
 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 <sup>3</sup>	OSHA Z-1
		TWA	400 ppm 1,600 mg/m <sup>3</sup>	OSHA P0
		TWA (Mist)	5 mg/m <sup>3</sup>	OSHA Z-1
		TWA (Mist)	5 mg/m <sup>3</sup>	OSHA P0
		TWA (Mist)	5 mg/m <sup>3</sup>	NIOSH REL
		ST (Mist)	10 mg/m <sup>3</sup>	NIOSH REL
		PEL (particulate)	5 mg/m <sup>3</sup>	CAL PEL
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	TWA (Mist)	5 mg/m <sup>3</sup>	OSHA Z-1
		TWA (Inhalable fraction)	5 mg/m <sup>3</sup>	ACGIH
carbon dioxide	124-38-9	TWA	5,000 ppm	ACGIH
		STEL	30,000 ppm	ACGIH
		TWA	5,000 ppm 9,000 mg/m <sup>3</sup>	NIOSH REL
		ST	30,000 ppm 54,000 mg/m <sup>3</sup>	NIOSH REL
		TWA	5,000 ppm 9,000 mg/m <sup>3</sup>	OSHA Z-1
		TWA	10,000 ppm 18,000 mg/m <sup>3</sup>	OSHA P0
		STEL	30,000 ppm 54,000 mg/m <sup>3</sup>	OSHA P0
		PEL	5,000 ppm	CAL PEL

## ZEP 45 DUAL FORCE AERO DZ

Version 1.5

Revision Date 03/20/2017

Print Date 01/11/2018

			9,000 mg/m3	
		STEL	30,000 ppm	CAL PEL
			54,000 mg/m3	

**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

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 : characteristic

Odour Threshold : No data available

pH : Not applicable

Melting point/freezing point : Not applicable

Boiling point : Not applicable

Flash point :  
Not applicable

Evaporation rate : No data available

Flammability (solid, gas) : Extremely flammable aerosol.

Upper explosion limit : No data available

Lower explosion limit : No data available

Vapour pressure : No data available

Relative vapour density : No data available

Density : 0.8715 g/cm3

Solubility(ies)

**ZEP 45 DUAL FORCE AERO DZ**

Version 1.5

Revision Date 03/20/2017

Print Date 01/11/2018

---

Water solubility	: insoluble
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	: Oxidizing agents
Hazardous decomposition products	: Carbon oxides

---

**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:**

<b>IARC</b>	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.
<b>ACGIH</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 ACGIH.
<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.

**ZEP 45 DUAL FORCE AERO DZ**

Version 1.5

Revision Date 03/20/2017

Print Date 01/11/2018

**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 dermal toxicity : Acute toxicity estimate : 3,722 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

**Distillates (petroleum), hydrotreated heavy naphthenic:**

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

Acute inhalation toxicity : LC50 Rat: > 5 mg/l  
Exposure time: 4 h

Acute dermal toxicity : LD50 Rabbit: > 5,000 mg/kg

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

Remarks: May cause skin and eye irritation in susceptible persons.

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

Remarks: May irritate eyes.

**Respiratory or skin sensitisation**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

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

**Distillates (petroleum), hydrotreated heavy naphthenic:**

**Propanol, 1(or 2)-(2-methoxymethylethoxy)-, acetate:**

**ZEP 45 DUAL FORCE AERO DZ**

Version 1.5

Revision Date 03/20/2017

Print Date 01/11/2018

---

**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

**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

**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

---



**ZEP 45 DUAL FORCE AERO DZ**

Version 1.5

Revision Date 03/20/2017

Print Date 01/11/2018

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

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): ORM-D, CONSUMER COMMODITY
---

Transportation Regulation: IMDG (Vessel): UN1950, AEROSOLS, FLAMMABLE, 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
--

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.

## ZEP 45 DUAL FORCE AERO DZ

Version 1.5

Revision Date 03/20/2017

Print Date 01/11/2018

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

## CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
pentyl acetate	628-63-7	5000	*

\*: 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  
Fire Hazard

**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**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.  
naphthalene 91-20-3

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

**TSCA** On TSCA Inventory  
**DSL** All components of this product are on the Canadian DSL

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

## ZEP 45 DUAL FORCE AERO DZ

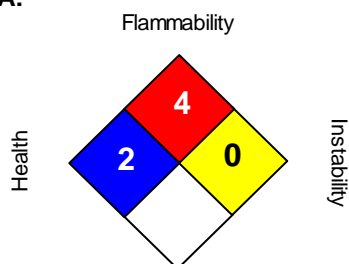
Version 1.5

Revision Date 03/20/2017

Print Date 01/11/2018

## Further information

## NFPA:



## HMIS III:

<b>HEALTH</b>	<b>2</b>
<b>FLAMMABILITY</b>	<b>4</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

Hazard statements

Precautionary statements

: **Danger:**  
: Extremely flammable aerosol. Contains gas under pressure; may explode if heated.  
: **Prevention:** 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.  
**Storage:** Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F. Store in a well-ventilated place.  
**Disposal:** Dispose of contents/container in accordance with local regulation.

Version:	1.5
Revision Date:	03/20/2017
Print Date:	01/11/2018

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.