

ZEPSTART AERO DZ

Version 3.0

Revision Date 05/01/2018

Print Date 05/22/2018

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : ZEPSTART AERO DZ

Material number : 000000000000030601

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 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 : Vehicle Maintenance

SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

Appearance	Aerosol containing a compressed gas
Colour	colourless
Odour	odourless

GHS ClassificationFlammable aerosols : Category 1
Gases under pressure : Compressed gas
Acute toxicity (Oral) : Category 4
Skin irritation : Category 2
Specific target organ toxicity - single exposure : Category 3 (Central nervous system)
Aspiration hazard : Category 1**GHS label elements**

Hazard pictograms :



Signal word : Danger

Hazard statements : H222 Extremely flammable aerosol.
H280 Contains gas under pressure; may explode if heated.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.

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H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

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 use.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

P331 Do NOT induce vomiting.

P332 + P313 If skin irritation occurs: Get medical advice/ attention.

P362 Take off contaminated clothing and wash before reuse.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

Disposal:

P501 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 [%]
heptane	142-82-5	>= 50 - < 70
diethyl ether	60-29-7	>= 20 - < 30
carbon dioxide	124-38-9	>= 5 - < 10

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.
Symptoms of poisoning may appear several hours later.

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	Do not leave the victim unattended.
If inhaled	: If breathed in, move person into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician or poison control centre immediately.
In case of skin contact	: Wash off immediately with plenty of water for at least 15 minutes. Wash clothing before reuse. Remove contaminated clothing and shoes. Call a physician if irritation develops or persists.
In case of eye contact	: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lens, if worn. If eye irritation persists, consult a specialist.
If swallowed	: If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If swallowed, call a poison control centre or doctor immediately.
Most important symptoms and effects, both acute and delayed	: Effects are immediate and delayed. Aspiration may cause pulmonary oedema and pneumonitis. Symptoms may include irritation, redness, pain, and rash. Effects are dependent on exposure (dose, concentration, contact time). Causes serious eye damage. May be fatal if swallowed and enters airways. Review section 2 of SDS to see all potential hazards.
Notes to physician	: Treat symptomatically. Symptoms may be delayed.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Foam Carbon dioxide (CO ₂) Dry powder
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 ₂) Carbon monoxide
Specific extinguishing methods	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Further information	: Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

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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.
Refer to protective measures listed in sections 7 and 8.
Remove all sources of ignition.
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 : Shovel into suitable container for disposal.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Keep away from fire, sparks and heated surfaces.
For personal protection see section 8.
Avoid exposure - obtain special instructions before use.
Smoking, eating and drinking should be prohibited in the application area.
Always replace cap after use.
Avoid contact with skin and eyes.
Take precautionary measures against static discharges.
Provide sufficient air exchange and/or exhaust in work rooms.
Do not breathe vapours or spray mist.
Do not burn.
- Conditions for safe storage : Electrical installations / working materials must comply with the technological safety standards.
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 in a dry, cool and well-ventilated place.
Observe label precautions.
- Materials to avoid : Strong oxidizing agents
Do not store near acids.
- Storage temperature : 4.4 - 49 °C

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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
heptane	142-82-5	TWA	85 ppm 350 mg/m ³	NIOSH REL
		C	440 ppm 1,800 mg/m ³	NIOSH REL
		TWA	500 ppm 2,000 mg/m ³	OSHA Z-1
		TWA	400 ppm 1,600 mg/m ³	OSHA P0
		STEL	500 ppm 2,000 mg/m ³	OSHA P0
		PEL	400 ppm 1,600 mg/m ³	CAL PEL
		STEL	500 ppm 2,000 mg/m ³	CAL PEL
		TWA	400 ppm	ACGIH
		STEL	500 ppm	ACGIH
diethyl ether	60-29-7	TWA	400 ppm	ACGIH
		STEL	500 ppm	ACGIH
		TWA	400 ppm 1,200 mg/m ³	OSHA Z-1
		TWA	400 ppm 1,200 mg/m ³	OSHA P0
		STEL	500 ppm 1,500 mg/m ³	OSHA P0
		PEL	400 ppm 1,200 mg/m ³	CAL PEL
		STEL	500 ppm 1,500 mg/m ³	CAL PEL
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
		PEL	5,000 ppm 9,000 mg/m ³	CAL PEL
		STEL	30,000 ppm 54,000 mg/m ³	CAL PEL

Engineering measures : effective ventilation in all processing areas

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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 : Solvent-resistant gloves
- Eye protection : Safety glasses
Access to clean water to rinse eyes must be available, options include: eye wash stations or showers, or eye wash bottles with pure water.
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.
- 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 : colourless
- Odour : odourless
- Odour Threshold : No data available
- pH : No data available
- Melting point/freezing point : No data available
- Boiling point : 95 - 200 °C
- Flash point :
No data available
- Evaporation rate : > 1
n-Butyl Acetate = 1.0
- Upper explosion limit : No data available
- Lower explosion limit : No data available
- Vapour pressure : No data available
- Relative vapour density : No data available
- Density : 0.7 g/cm³
- Solubility(ies)
- Water solubility : slightly soluble
- Partition coefficient: n-octanol/water : No data available

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Auto-ignition temperature	: not determined
Thermal decomposition	: No data available
Viscosity	
Viscosity, kinematic	: No data available

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	: Amines Strong oxidizing agents Nitrous acid and other nitrosating agents
Hazardous decomposition products	: Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION**Potential Health Effects**

Aggravated Medical Condition	: None known.
Symptoms of Overexposure	: Effects are immediate and delayed. Aspiration may cause pulmonary oedema and pneumonitis. Symptoms may include irritation, redness, pain, and rash. Effects are dependent on exposure (dose, concentration, contact time).

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	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.
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.

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Acute toxicity**Product:**

Acute oral toxicity : Acute toxicity estimate : 1,819 mg/kg
Method: Calculation method

Components:**heptane:**

Acute inhalation toxicity : LC50 Rat: 103 mg/l
Exposure time: 4 h

Skin corrosion/irritation**Product:**

Remarks: Irritating to skin.

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

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Aspiration toxicity**Product:**

May be fatal if swallowed and enters airways.

Further information**Product:**

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting., Concentrations substantially above the TLV value may cause narcotic effects., Solvents may degrease the skin.

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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:**heptane :**

Partition coefficient: n-octanol/water : log Pow: 5

diethyl ether :

Partition coefficient: n-octanol/water : log Pow: 1.1

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

: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Very toxic to aquatic life., May cause long lasting harmful effects to aquatic life.

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

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chemical or used container.
Dispose of in accordance with local regulations.

Contaminated packaging : Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.
Empty remaining contents.
Dispose of as unused product.
Empty containers retain residue and can be dangerous.

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, (LQ), - 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.

EPCRA - Emergency Planning and Community Right-to-Know Act**CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
diethyl ether	60-29-7	100	363

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

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SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)
Gases under pressure
Acute toxicity (any route of exposure)
Skin corrosion or irritation
Specific target organ toxicity (single or repeated exposure)
Aspiration 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

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

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

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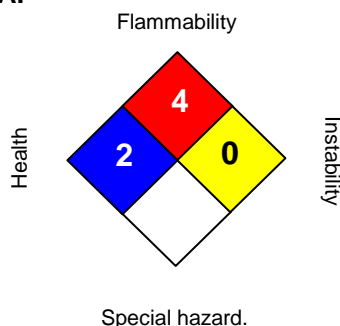
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Further information

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.
Harmful if swallowed. May be fatal if swallowed and enters airways. Causes skin irritation. May cause drowsiness or dizziness.

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. Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves.
Response: IF SWALLOWED: Immediately call a POISON CENTER/doctor. IF ON SKIN: Wash with plenty of soap and water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. Do NOT induce vomiting. If skin irritation occurs: Get medical advice/ attention. Take off contaminated clothing and wash before reuse.
Storage: Store in a well-ventilated place. Keep container tightly closed. 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.

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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

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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.