

ZEP ELEC II PLUS AERO DZ

Version 1.0

Revision Date 03/03/2015

Print Date 07/24/2015

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : ZEP ELEC II PLUS AERO DZ

Material number : 28301C

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	colourless
Odour	ether-like

GHS Classification

Gases under pressure : Compressed gas

Skin irritation : Category 2

Eye irritation : Category 2A

GHS Label element

Hazard pictograms :



Signal word : Warning

 Hazard statements : H280 Contains gas under pressure; may explode if heated.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.

 Precautionary statements : **Prevention:**
 P251 Pressurized container: Do not pierce or burn, even after use.
 P264 Wash skin thoroughly after handling.
 P280 Wear eye protection/ face protection.
 P280 Wear protective gloves.
Response:

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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.

Disposal:

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

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

Not classifiable as a human carcinogen

OSHA

propan-1-ol 71-23-8
 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 [%]
Butane, 1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxy-norflurane	163702-07-6	>= 10 - <= 40
trans-dichloroethylene	156-60-5	>= 1 - < 10
propan-1-ol	71-23-8	>= 1 - < 10
Methylcyclohexane	108-87-2	>= 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 : If unconscious place in recovery position and seek medical advice.

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- If symptoms persist, call a physician.
- In case of skin contact : If skin irritation persists, call a physician.
If on skin, rinse well with water.
If on clothes, remove clothes.
- In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
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 induce vomiting.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Hazardous combustion products : Carbon dioxide (CO₂)
Carbon monoxide
Smoke
Fluorine compounds
Chlorine compounds
- Specific extinguishing methods :
- 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.

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- 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 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.
Container may be opened only under exhaust ventilation hood.
Open drum carefully as content may be under pressure.
Dispose of rinse water in accordance with local and national regulations.
- 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.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
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 : No materials to be especially mentioned.

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

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
trans-dichloroethylene	156-60-5	TWA	200 ppm 793 mg/m ³	ACGIH
norflurane	811-97-2	TWA	1,000 ppm	US WEEL
propan-1-ol	71-23-8	TWA	100 ppm	ACGIH
		TWA	200 ppm	NIOSH REL

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			500 mg/m3	
		ST	250 ppm 625 mg/m3	NIOSH REL
		TWA	200 ppm 500 mg/m3	OSHA Z-1
		STEL	250 ppm 625 mg/m3	OSHA P0
		TWA	200 ppm 500 mg/m3	OSHA P0
trans-dichloroethylene	156-60-5	TWA	200 ppm 793 mg/m3	ACGIH

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
Remarks : 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 : colourless
- Odour : ether-like
- Odour Threshold : no data available
- pH : not applicable
- Melting point/freezing point : no data available
- Boiling point : 32 °C
- Flash point :
not applicable
- Evaporation rate : > 1
n-Butyl Acetate = 1.0

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Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: 293 hPa (21 °C)
Relative vapour density	: no data available
Relative density	: 1.24
Solubility(ies)	
Water solubility	: no data available
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	: 1.79 kJ/g

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Stable
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No decomposition if stored and applied as directed.
Conditions to avoid	: Heat, flames and sparks.
Incompatible materials	: Aluminium Zinc Oxidizing agents
Hazardous decomposition products	: No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity****Components:****norflurane:**

Acute inhalation toxicity : LC50 rat: 1,500 mg/l
Exposure time: 4 h

trans-dichloroethylene:

Acute oral toxicity : LD50 Oral rat: 1,235 mg/kg

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- Acute inhalation toxicity : LC50 rat: 24100 ppm
Exposure time: 4 h
- Acute dermal toxicity : LD50 Dermal rabbit: > 5,000 mg/kg
- propan-1-ol:**
Acute oral toxicity : LD50 Oral rat: 1,870 mg/kg
- Acute dermal toxicity : LD50 Dermal rabbit: 5,040 mg/kg

Skin corrosion/irritation**Components:****trans-dichloroethylene:**

Species: rabbit
Exposure time: 24 h
Result: Skin irritation

propan-1-ol:

Species: human skin
Exposure time: 24 h
Result: Mild skin irritation

Methylcyclohexane:

Species: rabbit
Exposure time: 24 h
Result: Mild skin irritation

Serious eye damage/eye irritation**Components:****trans-dichloroethylene:**

Species: rabbit
Exposure time: 24 h
Result: Eye irritation

propan-1-ol:

Species: rabbit
Exposure time: 24 h
Result: Moderate eye irritation

Methylcyclohexane:

Species: rabbit
Exposure time: 24 h
Result: Mild eye irritation

Respiratory or skin sensitisation

no data available

Germ cell mutagenicity

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no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

Butane, 1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxy-:**norflurane:****trans-dichloroethylene:****propan-1-ol:****Methylcyclohexane:****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

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

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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., Harmful to aquatic life with long lasting effects.

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.
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

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

Transportation Regulation: IMDG (Vessel):
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

Transportation Regulation: IATA (Cargo Air):
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

Transportation Regulation: IATA (Passenger Air):
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

Transportation Regulation: TDG (Canada):
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

SECTION 15. REGULATORY INFORMATION

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

CERCLA Reportable Quantity

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Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
trans-dichloroethylene	156-60-5	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 : Sudden Release of Pressure Hazard
Acute Health 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 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:

TSCA	On TSCA Inventory
DSL	On the inventory, or in compliance with the inventory
AICS	On the inventory, or in compliance with the inventory
NZIoC	On the inventory, or 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), KECl (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION

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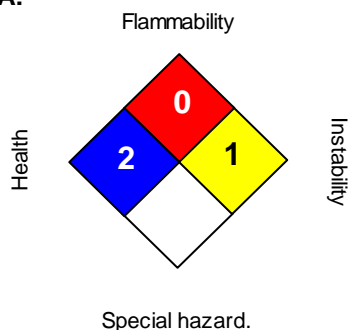
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Further information

NFPA:



HMIS III:

HEALTH	2
FLAMMABILITY	0
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

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

Precautionary statements

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

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