# **ZEP ELEC II PLUS**

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#### **SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Material name : ZEP ELEC II PLUS

Material number : 28300C

Manufacturer or supplier's details

Company : Zep Inc.

Address : 350 Joe Frank Harris Parkway, SE

Emerson, GA 30137

Telephone : Compliance Services - 877-428-9937

## **Emergency telephone numbers**

For SDS Information : Compliance Services - 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

#### **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 elements

Hazard pictograms :



Gas cylinder

Exclamation mark

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**:

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/ eye protection/ face protection.

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.

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

Substance / Mixture : Mixture

#### **Hazardous components**

Chemical name	CAS-No.	Concentration [%]
norflurane	811-97-2	>= 30 - < 50
propan-1-ol	71-23-8	>= 10 - < 20
trans-dichloroethylene	156-60-5	>= 10 - < 20
methylcyclohexane	108-87-2	>= 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.

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.

If symptoms persist, call a physician.

In case of skin contact : If skin irritation persists, call a physician.

Wash off immediately with soap and plenty of water.

If on clothes, remove clothes.

In case of eye contact : Rinse immediately with plenty of water 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 induce vomiting.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

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> If symptoms persist, call a physician. Take victim immediately to hospital.

Most important symptoms and effects, both acute and

delayed

: Effects are immediate and delayed.

Symptoms may include blistering, irritation, burns, and pain. Effects are dependent on exposure (dose, concentration,

contact time).

Causes skin irritation.

Causes serious eye irritation.

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 : Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

Unsuitable extinguishing

media

: None known.

Hazardous combustion

products

: Carbon dioxide (CO2)

Carbon monoxide

Smoke

Fluorine compounds Chlorine compounds

Specific extinguishing

Further information

methods

: Standard procedure for chemical fires.

: 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 : Soak up with inert absorbent material (e.g. sand, silica gel,

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containment and cleaning up 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.

Provide sufficient air exchange and/or exhaust in work rooms. Container may be opened only under exhaust ventilation

hood.

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 : 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/m3	ACGIH
		TWA	200 ppm	ACGIH
norflurane	811-97-2	TWA	1,000 ppm	US WEEL
propan-1-ol	71-23-8	TWA	100 ppm	ACGIH
		TWA	200 ppm 500 mg/m3	NIOSH REL
		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

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		PEL	200 ppm 500 mg/m3	CAL PEL
		STEL	250 ppm 625 mg/m3	CAL PEL
trans-dichloroethylene	156-60-5	TWA	200 ppm 793 mg/m3	ACGIH
		TWA	200 ppm	ACGIH
methylcyclohexane	108-87-2	TWA	400 ppm	ACGIH
		TWA	400 ppm 1,600 mg/m3	NIOSH REL
		TWA	500 ppm 2,000 mg/m3	OSHA Z-1
		TWA	400 ppm 1,600 mg/m3	OSHA P0
		PEL	400 ppm 1,600 mg/m3	CAL PEL

**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 : 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

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Melting point/freezing point : No data available

Boiling point : 32 °C

Flash point

Not applicable

Evaporation rate : > 1

n-Butyl Acetate = 1.0

Flammability (solid, gas,

liquid)

: Not classified as a flammability hazard

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- : No data available

octanol/water

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.

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#### **SECTION 11. TOXICOLOGICAL INFORMATION**

#### **Potential Health Effects**

Aggravated Medical

: None known.

Condition

Symptoms of Overexposure

: Effects are immediate and delayed.

Symptoms may include blistering, irritation, burns, and pain. Effects are dependent on exposure (dose, concentration,

contact time).

Causes skin irritation.
Causes serious eye irritation.

Review section 2 of SDS to see all potential hazards. Treat symptomatically. Symptoms may be delayed.

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.

**Acute toxicity** 

**Product:** 

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg

Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate : 11.57 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:** 

norflurane:

Acute inhalation toxicity : LC50 Rat: 12,503.751 mg/l

Exposure time: 4 h

propan-1-ol:

Acute dermal toxicity : LD50 Dermal Rabbit: 5,040 mg/kg

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trans-dichloroethylene:

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

Acute inhalation toxicity : LC50 Rat: 24100 ppm

Exposure time: 4 h

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

#### Skin corrosion/irritation

#### **Product:**

Remarks: Irritating to skin.

#### **Components:**

## 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

#### **Product:**

Remarks: Irritating to eyes.

## **Components:**

## 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

No data available

#### Carcinogenicity

No data available

## Reproductive toxicity

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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

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

: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Harmful to

aquatic life with long lasting effects.

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#### **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 as hazardous waste in compliance with local and

national 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):

UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

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

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**

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Components	CAS-No.	Component RQ	Calculated product RQ
		(lbs)	(lbs)
trans-dichloroethylene	156-60-5	1000	*

<sup>\*:</sup> 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 : Gases under pressure

Skin corrosion or irritation

Serious eye damage or eye irritation

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 can expose you to chemicals including methanol, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

# 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**

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#### **Further information**

#### NFPA:

HEALTH	2
FLAMMABILITY	2
INSTABILITY	0
SPECIAL HAZARD.	

0 = not significant, 1 = Slight,

2 = Moderate, 3 = High

4 = Extreme

#### HMIS III:

HEALTH	2
FLAMMABILITY	2
PHYSICAL HAZARD	2

0 = not significant, 1 = Slight,

2 = Moderate, 3 = High 4 = Extreme, \* = Chronic

#### **OSHA - GHS Label Information:**

Hazard pictograms



Gas cylinder



Exclamation

Signal word Hazard statements

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

Precautionary statements

Prevention: Wash skin thoroughly after handling. Wear protective gloves/ eye protection/ face protection.

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

# SAFETY DATA SHEET ZEP ELEC II PLUS

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