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SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : ZEP ZEP-A-LUME E CLEANER 55GL

Material number : M61085

Manufacturer or supplier's details

Company : Zep Inc.

Address : 11627 - 178 Street

Edmonton, Alberta T5S 1N6

Canada

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

Recommended use of the chemical and restrictions on use

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	liquid
Colour	amber, colourless, clear
Odour	strong

GHS Classification

Acute toxicity (Oral) : Category 3
Acute toxicity (Inhalation) : Category 4
Acute toxicity (Dermal) : Category 2
Skin corrosion : Category 1
Serious eye damage : Category 1

GHS label elements

Hazard pictograms :





Skull and crossbones

Signal word : Danger

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Hazard statements : H301 Toxic if swallowed.

H310 Fatal in contact with skin.

H314 Causes severe skin burns and eye damage.

H332 Harmful if inhaled.

Precautionary statements : **Prevention**:

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

P262 Do not get in eyes, on skin, or on clothing. 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/ protective clothing/ eye

protection/ face protection.

P201 + P202 Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

SPECIAL HANDLING INSTRUCTIONS - Due to the unique hazards associated with hydrogen fluoride (HF), facilities need to have access to emergency showers, proper personal protective equipment (PPE), a supply of calcium gluconate gel, and complete training of all individuals on proper PPE and procedures.

Response:

P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. P302 + P352 + P310 IF ON SKIN: Wash with plenty of water. Immediately call a POISON CENTER/doctor.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.

P320 Specific treatment is urgent (see supplemental instructions on the administration of antidotes on this label). SUPPLEMENTAL MEDICAL TREATMENT - Get immediate medical attention while applying and massaging in 2.5% calcium gluconate gel to the skin.

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/doctor.

P361 + P364 Take off immediately all contaminated clothing and wash it before reuse.

Storage:

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

P405 Store locked up.

Disposal:

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

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Concentration [%]
sulphuric acid	7664-93-9	>= 5 - < 10
hydrogen fluoride	7664-39-3	>= 1 - < 5
2-butoxyethanol	111-76-2	>= 1 - < 5
Alcohols, C9-11, ethoxylated	68439-46-3	>= 1 - < 5
orthophosphoric acid	7664-38-2	>= 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. Symptoms of poisoning may appear several hours later.

Do not leave the victim unattended.

If inhaled : Consult a physician after significant exposure.

If unconscious, place in recovery position and seek medical

advice.

Move to fresh air.

Oxygen or artificial respiration if needed.

In case of skin contact : In case of contact, immediately flush skin with plenty of water

for at least 15 minutes while removing contaminated clothing and shoes. Get immediate medical attention while applying and massaging in 2.5% calcium gluconate gel. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get

immediate medical attention.

In case of eye contact : Small amounts splashed into eyes can cause irreversible

tissue damage and blindness.

Rinse immediately with plenty of water, also under the eyelids,

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.

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. Take victim immediately to hospital.

Most important symptoms and effects, both acute and

delayed

: Effects are dependent on exposure (dose, concentration,

contact time).

Effects are immediate and delayed.

Symptoms may include blistering, irritation, burns, and pain. Symptoms may include central nervous system depression,

resulting in headache, nausea and/or dizziness.

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Fatal in contact with skin.

Causes severe skin burns and eye damage.

Review section 2 of SDS to see all potential hazards.

Notes to physician : Treat symptomatically. Symptoms may be delayed.

Delayed treatment may result in hypoglycemia, begin treatment with topical application calcium gluconate, and

monitor blood chemistry.

Contact a poison treatment specialist immediately if large quantities have been ingested or inhaled, or contact with large

portions of the body have occurred.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or

carbon dioxide.

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

: Fluorine compounds Carbon dioxide (CO2)

Carbon monoxide

Smoke

Phosphorus compounds

Sulphur oxides

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.

Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations.

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.

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).

Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Technical measures : Due to the unique hazards associated with hydrogen fluoride

(HF), it is highly recommended that emergency pre-planning and training of employees occur to mitigate and facilitate rapid response to an exposure. Facilities need to have access to emergency showers, proper personal protective equipment (PPE), a supply of calcium gluconate gel, and complete training of all individuals on proper PPE and procedures.

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. To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national

regulations.

Conditions for safe storage : Keep container tightly closed in a dry and 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

Store and keep away from bases and alkalies.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
sulphuric acid	7664-93-9	TWA	1 mg/m3	CA AB OEL
		STEL	3 mg/m3	CA AB OEL
		TWA	0.2 mg/m3	CA BC OEL
		(Thoracic)		
		TWAEV	1 mg/m3	CA QC OEL
		STEV	3 mg/m3	CA QC OEL
		TWA (Thoracic fraction)	0.2 mg/m3	ACGIH
hydrogen fluoride	7664-39-3	TWA	0.5 ppm 0.4 mg/m3	CA AB OEL

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			(Fluorine)	
		(c)	2 ppm 1.6 mg/m3 (Fluorine)	CA AB OEL
		С	2 ppm (Fluorine)	CA BC OEL
		С	3 ppm 2.6 mg/m3 (Fluorine)	CA QC OEL
		TWA	0.5 ppm 0.4 mg/m3 (Fluorine)	CA AB OEL
		(c)	2 ppm 1.6 mg/m3 (Fluorine)	CA AB OEL
		С	2 ppm (Fluorine)	CA BC OEL
		С	3 ppm 2.6 mg/m3 (Fluorine)	CA QC OEL
		TWA	0.5 ppm (Fluorine)	ACGIH
		С	2 ppm (Fluorine)	ACGIH
		TWA	0.5 ppm (Fluorine)	ACGIH
		С	2 ppm (Fluorine)	ACGIH
2-butoxyethanol	111-76-2	TWA	20 ppm 97 mg/m3	CA AB OEL
		TWA	20 ppm	CA BC OEL
		TWAEV	20 ppm 97 mg/m3	CA QC OEL
		TWA	20 ppm	ACGIH
orthophosphoric acid	7664-38-2	TWA	1 mg/m3	CA AB OEL
		STEL	3 mg/m3	CA AB OEL
		TWA	1 mg/m3	CA BC OEL
		STEL	3 mg/m3	CA BC OEL
		TWAEV	1 mg/m3	CA QC OEL
		STEV	3 mg/m3	CA QC OEL
		TWA	1 mg/m3	ACGIH
		STEL	3 mg/m3	ACGIH

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Samplin g time	Permissible concentratio n	Basis
HYDROFLUORIC ACID	7664-39-3	Fluoride	Urine	Prior to shift (16 hours after exposure ceases)	2 mg/l	ACGIH BEI
		Fluoride	Urine	End of shift (As soon as possible	3 mg/l	ACGIH BEI

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				after exposure ceases)		
2-BUTOXYETHANOL	111-76-2	Butoxyaceti c acid (BAA)	Urine	End of shift (As soon as possible after exposure ceases)	200 mg/g Creatinine	ACGIH BEI

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 : Ensure that eyewash stations and safety showers are close to

the workstation location. Tightly fitting safety goggles

Face-shield

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 : Avoid contact with skin, eyes and clothing.

When using do not eat or drink.

When using do not smoke.

Wash hands before breaks and immediately after handling

the product.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : amber, colourless, clear

Odour : strong

Odour Threshold : No data available

pH : < '

Melting point/freezing point : Not applicable

Boiling point : 104.44 °C

Boiling point : 104.44 ° Flash point :

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does not flash

Evaporation rate : 1

Upper explosion limit : Not applicable

Lower explosion limit : Not applicable

Vapour pressure : Not applicable

Relative vapour density : No data available

Density : 1.06 g/cm3

Bulk density : No data available

Solubility(ies)

Water solubility : soluble

Solubility in other solvents : not determined

Partition coefficient: n-

octanol/water

: No data available

Auto-ignition temperature : not determined

Thermal decomposition : No data available

Viscosity

Viscosity, dynamic : No data available Viscosity, kinematic : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Stable

Chemical stability : Stable under normal conditions.

Possibility of hazardous

Incompatible materials

reactions

: No decomposition if stored and applied as directed.

Conditions to avoid : No data available

Bases

Hazardous decomposition

products

: Carbon oxides

Oxidizing agents

Phosphorus compounds

Sulphur oxides

SECTION 11. TOXICOLOGICAL INFORMATION

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Potential Health Effects

Aggravated Medical

Condition

: None known.

Symptoms of Overexposure

: Effects are dependent on exposure (dose, concentration,

contact time).

Effects are immediate and delayed.

Symptoms may include blistering, irritation, burns, and pain. Symptoms may include central nervous system depression,

resulting in headache, nausea and/or dizziness.

Fatal in contact with skin.

Causes severe skin burns and eye damage.

Review section 2 of SDS to see all potential hazards. Treat symptomatically. Symptoms may be delayed. Delayed treatment may result in hypoglycemia, begin treatment with topical application calcium gluconate, and

monitor blood chemistry.

Contact a poison treatment specialist immediately if large quantities have been ingested or inhaled, or contact with large

portions of the body have occurred.

Carcinogenicity:

IARC Group 1: Carcinogenic to humans

sulphuric acid 7664-93-9

ACGIH Suspected human carcinogen

sulphuric acid 7664-93-9

Confirmed animal carcinogen with unknown relevance to

humans

2-butoxyethanol 111-76-2

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate : 150.66 mg/kg

Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate : 14.64 mg/l

Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : 151.16 mg/kg

Method: Calculation method

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Components:

2-butoxyethanol:

Acute oral toxicity : LD50 Oral Rat: 880 mg/kg

Acute dermal toxicity : LD50 Dermal Rabbit: 1,060 mg/kg

Alcohols, C9-11, ethoxylated:

Acute oral toxicity : LD50 Oral Rat: 1,400 mg/kg

Skin corrosion/irritation

Product:

Remarks: Causes skin burns. Harmful if absorbed through the skin. Contact results in immediate skin absorption which may cause hypocalcemia (calcium loss). This effect may be delayed for several hours after exposure. Severe over-exposure by absorption can result in death. Get immediate medical attention.

Remarks: Extremely corrosive and destructive to tissue.

Components:

hydrogen fluoride:

Remarks: Causes skin burns. Harmful if absorbed through the skin. Contact results in immediate skin absorption which may cause hypocalcemia (calcium loss). This effect may be delayed for several hours after exposure. Severe over-exposure by absorption can result in death. Get immediate medical attention.

Serious eye damage/eye irritation

Product:

Remarks: May cause irreversible eye damage.

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

No data available

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Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

Product:

octanol/water

Partition coefficient: n- : Remarks: No data available

Mobility in soil

No data available

Other adverse effects

No data available

Product:

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.

SECTION 14. TRANSPORT INFORMATION

Transportation Regulation (TDG) / Règlement Pour Le Transport (TMD): (Canada): UN2922, CORROSIVE LIQUID, TOXIC, N.O.S., (HYDROFLUORIC ACID, SULFURIC ACID), 8, (6.1), Ш

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Transportation Regulation / Règlement Pour Le Transport: IMDG (Vessel): UN2922, CORROSIVE LIQUID, TOXIC, N.O.S., (HYDROFLUORIC ACID, SULFURIC ACID), 8, (6.1), II

Transportation Regulation / Règlement Pour Le Transport: IATA (Cargo Air): UN2922, Corrosive liquid, toxic, n.o.s., (HYDROFLUORIC ACID, SULFURIC ACID), 8, (6.1), II

Transportation Regulation / Règlement Pour Le Transport: IATA (Passenger Air): UN2922, Corrosive liquid, toxic, n.o.s., (HYDROFLUORIC ACID, SULFURIC ACID), 8, (6.1), II

Transportation Regulation / Règlement Pour Le Transport: 49 CFR (USA): UN2922, Corrosive liquids, toxic, n.o.s., (HYDROFLUORIC ACID, SULFURIC ACID), 8, (6.1), II

The product as delivered to the customer conforms to packaging requirements for shipment by road under Transport Dangerous Goods (TDG) Canada 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

This product has been classified according to the hazard criteria of the HPR and the SDS contains all of the information required by the HPR.

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

WHMIS - GHS Label Information:

Hazard pictograms





Janger:

Signal word : Danger:

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Hazard statements

Toxic if swallowed. Fatal in contact with skin. Causes severe skin burns and eye damage. Harmful if inhaled.

Precautionary statements

Prevention: Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Do not get in eyes, on skin, or on clothing. 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/ protective clothing/ eye protection/ face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. SPECIAL HANDLING INSTRUCTIONS - Due to the unique hazards associated with hydrogen fluoride (HF), facilities need to have access to emergency showers, proper personal protective equipment (PPE), a supply of calcium gluconate gel, and complete training of all individuals on proper PPE and procedures.

Response: IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF ON SKIN: Wash with plenty of water. Immediately call a POISON CENTER/doctor. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. Specific treatment is urgent (see supplemental instructions on the administration of antidotes on this label). SUPPLEMENTAL MEDICAL TREATMENT - Get immediate medical attention while applying and massaging in 2.5% calcium gluconate gel to the skin. 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/doctor. Take off immediately all contaminated clothing and wash it before reuse.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked

up.

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

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