

SAFETY DATA SHEET

ZEP AC FLUSH AIR CONDITIONING FLUSH 1GL 4CT

Version 5.3

Revision Date 10/01/2023

Print Date 10/02/2023

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : ZEP AC FLUSH AIR CONDITIONING FLUSH 1GL 4CT

Material number : 00000000000078824

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
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

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	liquid
Colour	clear
Odour	hydrocarbon-like

GHS Classification

Flammable liquids : Category 2
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 : H225 Highly flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.

Precautionary statements : **Prevention:**

SAFETY DATA SHEET

ZEP AC FLUSH AIR CONDITIONING FLUSH 1GL 4CT

Version 5.3

Revision Date 10/01/2023

Print Date 10/02/2023

P210 Keep away from heat/sparks/open flames/hot surfaces.
No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ eye protection/ face protection.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P235 Keep cool.

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 [%]
Naphtha (petroleum), hydrotreated light	64742-49-0	>= 70 - < 90
propan-2-ol	67-63-0	>= 5 - < 10
heptane	142-82-5	>= 1 - < 3

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.

SAFETY DATA SHEET

ZEP AC FLUSH AIR CONDITIONING FLUSH 1GL 4CT

Version 5.3

Revision Date 10/01/2023

Print Date 10/02/2023

- Symptoms of poisoning may appear several hours later.
Do not leave the victim unattended.
- If inhaled : If breathed in, move person into fresh air.
Remove person to fresh air. If signs/symptoms continue, get medical attention.
- In case of skin contact : If skin irritation persists, call a physician.
Wash off immediately with plenty of water for at least 15 minutes.
Remove contaminated clothing and shoes.
Wash contaminated clothing before reuse.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Remove contact lenses.
Protect unharmed eye.
If eye irritation persists, consult a specialist.
Keep eye wide open while rinsing.
- If swallowed : Keep respiratory tract clear.
Do NOT induce vomiting.
Never give anything by mouth to an unconscious person.
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.
Aspiration may cause pulmonary oedema and pneumonitis.
Symptoms may include central nervous system depression, resulting in headache, nausea and/or dizziness.
Symptoms may include irritation, redness, pain, and rash.
Acute specific target organ toxicity effects will differ depending on mode of exposure (oral, dermal, and inhalation), the organs and systems affected, and any preexisting medical conditions. Symptoms may include respiratory difficulty, abdominal pain, headache, dizziness, drowsiness, vomiting, central nervous system depression, blurred vision, seizures, and unconsciousness - potentially life threatening.
Effects are dependent on exposure (dose, concentration, contact time).
Causes damage to organs.
May be fatal if swallowed and enters airways.
Causes skin irritation.
May cause drowsiness or dizziness.
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 : Alcohol-resistant foam
Carbon dioxide (CO₂)
Dry chemical
- Unsuitable extinguishing media : High volume water jet

SAFETY DATA SHEET

ZEP AC FLUSH AIR CONDITIONING FLUSH 1GL 4CT

Version 5.3

Revision Date 10/01/2023

Print Date 10/02/2023

- Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Carbon dioxide (CO₂)
Carbon monoxide
Smoke
- 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.
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 : In the event of fire, wear self-contained breathing apparatus.

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 : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Avoid formation of aerosol.
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.
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.

SAFETY DATA SHEET

ZEP AC FLUSH AIR CONDITIONING FLUSH 1GL 4CT

Version 5.3

Revision Date 10/01/2023

Print Date 10/02/2023

Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage : No smoking.
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
Do not freeze.

Storage temperature : 5 - 40 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
propan-2-ol	67-63-0	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
		TWA	400 ppm 980 mg/m ³	NIOSH REL
		ST	500 ppm 1,225 mg/m ³	NIOSH REL
		TWA	400 ppm 980 mg/m ³	OSHA Z-1
		TWA	400 ppm 980 mg/m ³	OSHA P0
		STEL	500 ppm 1,225 mg/m ³	OSHA P0
		PEL	400 ppm 980 mg/m ³	CAL PEL
		STEL	500 ppm 1,225 mg/m ³	CAL PEL
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

SAFETY DATA SHEET

ZEP AC FLUSH AIR CONDITIONING FLUSH 1GL 4CT

Version 5.3

Revision Date 10/01/2023

Print Date 10/02/2023

		TWA	400 ppm	ACGIH
		STEL	500 ppm	ACGIH

Biological occupational exposure limits

Component	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
PROPAN-2-OL	67-63-0	Acetone	Urine	End of shift at end of workweek	40 mg/l	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

Remarks

: Protective gloves

: Skin should be washed after contact. For prolonged or repeated contact use protective gloves. 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

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 : liquid

Colour : clear

Odour : hydrocarbon-like

Odour Threshold : No data available

pH : Not applicable

Melting point/freezing point : No data available

SAFETY DATA SHEET

ZEP AC FLUSH AIR CONDITIONING FLUSH 1GL 4CT

Version 5.3

Revision Date 10/01/2023

Print Date 10/02/2023

Boiling point	: 64 °C
Flash point	: -18 °C Method: TCC
Evaporation rate	: No data available No data available
Upper explosion limit	: 11.6 %(V)
Lower explosion limit	: 1.2 %(V)
Vapour pressure	: 178.65 hPa (20 °C)
Relative vapour density	: No data available
Density	: 0.7 g/cm ³
Bulk density	: No data available
Solubility(ies)	
Water solubility	: insoluble
Solubility in other solvents	: insoluble
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 reactions	: Vapours may form explosive mixture with air.
Conditions to avoid	: Heat, flames and sparks. Extremes of temperature and direct sunlight.
Incompatible materials	: Oxidizing agents
Hazardous decomposition products	: Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

SAFETY DATA SHEET

ZEP AC FLUSH AIR CONDITIONING FLUSH 1GL 4CT

Version 5.3

Revision Date 10/01/2023

Print Date 10/02/2023

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 central nervous system depression, resulting in headache, nausea and/or dizziness.
Symptoms may include irritation, redness, pain, and rash.
Acute specific target organ toxicity effects will differ depending on mode of exposure (oral, dermal, and inhalation), the organs and systems affected, and any preexisting medical conditions. Symptoms may include respiratory difficulty, abdominal pain, headache, dizziness, drowsiness, vomiting, central nervous system depression, blurred vision, seizures, and unconsciousness - potentially life threatening.
Effects are dependent on exposure (dose, concentration, contact time).
Causes damage to organs.
May be fatal if swallowed and enters airways.
Causes skin irritation.
May cause drowsiness or dizziness.
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

Components:

propan-2-ol:
Acute oral toxicity : LD50 Oral Rat: 4,396 mg/kg
Method: Calculation method

SAFETY DATA SHEET

ZEP AC FLUSH AIR CONDITIONING FLUSH 1 GL 4CT

Version 5.3

Revision Date 10/01/2023

Print Date 10/02/2023

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: Vapours may cause irritation to the eyes, respiratory system and the skin.

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

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

SAFETY DATA SHEET

ZEP AC FLUSH AIR CONDITIONING FLUSH 1GL 4CT

Version 5.3

Revision Date 10/01/2023

Print Date 10/02/2023

Bioaccumulative potential

Product:

Partition coefficient: n-octanol/water : Remarks: No data available

Components:

propan-2-ol :

Partition coefficient: n-octanol/water : log Pow: 0.05

heptane :

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

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 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):

SAFETY DATA SHEET

ZEP AC FLUSH AIR CONDITIONING FLUSH 1GL 4CT

Version 5.3

Revision Date 10/01/2023

Print Date 10/02/2023

UN1993, Flammable liquids, n.o.s., (HEPTANE, ISOPROPANOL), 3, II

Transportation Regulation: IMDG (Vessel):

UN1993, FLAMMABLE LIQUID, N.O.S., (HEPTANE, ISOPROPANOL), 3, II

Transportation Regulation: IATA (Cargo Air):

UN1993, Flammable liquid, n.o.s., (HEPTANE, ISOPROPANOL), 3, II

Transportation Regulation: IATA (Passenger Air):

UN1993, Flammable liquid, n.o.s., (HEPTANE, ISOPROPANOL), 3, II

Transportation Regulation: TDG (Canada):

UN1993, FLAMMABLE LIQUID, N.O.S., (HEPTANE, ISOPROPANOL), 3, II

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

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

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

SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)
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

SAFETY DATA SHEET

ZEP AC FLUSH AIR CONDITIONING FLUSH 1GL 4CT

Version 5.3

Revision Date 10/01/2023

Print Date 10/02/2023



WARNING: This product can expose you to chemicals including naphthalene, cumene, ethylbenzene, benzene, which is/are known to the State of California to cause cancer, and toluene, benzene, 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:

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

SAFETY DATA SHEET

ZEP AC FLUSH AIR CONDITIONING FLUSH 1GL 4CT

Version 5.3

Revision Date 10/01/2023

Print Date 10/02/2023

Further information

NFPA:

HEALTH	2
FLAMMABILITY	3
INSTABILITY	0
SPECIAL HAZARD.	

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme

HMIS III:

HEALTH	3
FLAMMABILITY	3
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

OSHA - GHS Label Information:

Hazard pictograms :



Signal word :

Danger:

Hazard statements :

Highly flammable liquid and vapour. May be fatal if swallowed and enters airways.
Causes skin irritation. May cause drowsiness or dizziness.

Precautionary statements :

Prevention: Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing dust/fume/gas/mist/vapours/spray. Wash skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/eye protection/face protection.
Response: IF SWALLOWED: Immediately call a POISON CENTER/doctor. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. 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

SAFETY DATA SHEET

ZEP AC FLUSH AIR CONDITIONING FLUSH 1GL 4CT

Version 5.3

Revision Date 10/01/2023

Print Date 10/02/2023

and wash before reuse. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

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

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

Version:	5.3
Revision Date:	10/01/2023
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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.