

SAFETY DATA SHEET

ZEP XT-2002 CONCENTRATED LOW-FOAM LIQUID ACID CLEANER

Version 3.1

Revision Date 10/01/2023

Print Date 04/27/2025

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : ZEP XT-2002 CONCENTRATED LOW-FOAM LIQUID ACID CLEANER

Material number : 000000000000509075

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

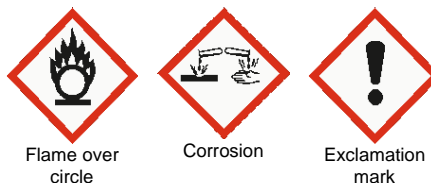
Appearance	liquid
Colour	clear
Odour	mild

GHS Classification

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

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H272 May intensify fire; oxidizer.
H312 + H332 Harmful in contact with skin or if inhaled.
H314 Causes severe skin burns and eye damage.

Precautionary statements : **Prevention:**

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P210 Keep away from heat.

P220 Keep/Store away from clothing/ combustible materials.

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/ protective clothing/ eye protection/ face protection.

Response:

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/shower.

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

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.

P362 + P364 Take off contaminated clothing and wash it before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

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 [%]
nitric acid	7697-37-2	≥ 10 - < 30
orthophosphoric acid	7664-38-2	≥ 5 - < 10
sodium xylenesulphonate	1300-72-7	≥ 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.

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| In case of skin contact | : Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
Wash off immediately with plenty of water for at least 15 minutes.
Remove contaminated clothing and shoes.
Wash contaminated clothing before reuse.
If skin irritation persists, call a physician. |
| 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.
DO NOT induce vomiting unless directed to do so by a physician or poison control center.
If symptoms persist, call a physician.
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 shortness of breath, dry cough, and irritation of the nose, eyes, lips, mouth, and throat.
Causes severe skin burns and eye damage.
Harmful in contact with skin or if inhaled.
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 (CO ₂)
Dry chemical |
| 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 | : Nitrogen oxides (NO _x)
Smoke
Carbon dioxide (CO ₂)
Carbon monoxide
Phosphorus compounds
Sulphur oxides |

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|---|---|
| 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 | : 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. |
| 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 | : Do not breathe vapours or spray mist.
Avoid contact with skin and eyes.
Smoking, eating and drinking should be prohibited in the application area.
For personal protection see section 8.
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 | : Store and keep away from, oxidizing agents and 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
nitric acid	7697-37-2	TWA	2 ppm	ACGIH
		STEL	4 ppm	ACGIH
		ST	4 ppm 10 mg/m3	NIOSH REL
		TWA	2 ppm 5 mg/m3	NIOSH REL
		TWA	2 ppm 5 mg/m3	OSHA Z-1
		TWA	2 ppm 5 mg/m3	OSHA P0
		STEL	4 ppm 10 mg/m3	OSHA P0
		PEL	2 ppm 5 mg/m3	CAL PEL
		STEL	4 ppm 10 mg/m3	CAL PEL
orthophosphoric acid	7664-38-2	TWA	1 mg/m3	ACGIH
		STEL	3 mg/m3	ACGIH
		TWA	1 mg/m3	NIOSH REL
		ST	3 mg/m3	NIOSH REL
		TWA	1 mg/m3	OSHA Z-1
		TWA	1 mg/m3	OSHA P0
		STEL	3 mg/m3	OSHA P0
		PEL	1 mg/m3	CAL PEL
		STEL	3 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

Remarks

: Protective gloves

: The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection

: Tightly fitting safety goggles

Wear face-shield and protective suit for abnormal processing problems.

Ensure that eyewash stations and safety showers are close to the workstation location.

Skin and body protection

: Impervious clothing

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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	: mild
Odour Threshold	: No data available
pH	: < 1
Melting point/freezing point	: No data available
Boiling point	: 104.44 °C
Flash point	: No data available
Evaporation rate	: 1
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Density	: 1.24 g/cm ³
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	: No data available
Thermal decomposition	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available

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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	: No data available
Incompatible materials	: Alkali metals Oxidizing agents
Hazardous decomposition products	: Carbon oxides Nitrogen oxides (NO _x)

SECTION 11. TOXICOLOGICAL INFORMATION

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 shortness of breath, dry cough, and irritation of the nose, eyes, lips, mouth, and throat. Causes severe skin burns and eye damage. Harmful in contact with skin or if inhaled. 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 inhalation toxicity	: Acute toxicity estimate : 12.03 mg/l Exposure time: 4 h
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Test atmosphere: vapour
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : 1,203 mg/kg
Method: Calculation method

Skin corrosion/irritation

Product:

Remarks: Extremely corrosive and destructive to tissue.

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

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

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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 : 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.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

Transportation Regulation: 49 CFR (USA):
UN3264, Corrosive liquid, acidic, inorganic, n.o.s., (PHOSPHORIC ACID, NITRIC ACID), 8, II

Transportation Regulation: IMDG (Vessel):
UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., (PHOSPHORIC ACID, NITRIC ACID), 8, II

Transportation Regulation: IATA (Cargo Air):
UN3264, Corrosive liquid, acidic, inorganic, n.o.s., (PHOSPHORIC ACID, NITRIC ACID), 8, II

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Transportation Regulation: IATA (Passenger Air):
UN3264, Corrosive liquid, acidic, inorganic, n.o.s., (PHOSPHORIC ACID, NITRIC ACID), 8, II

Transportation Regulation: TDG (Canada):
UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., (PHOSPHORIC ACID, NITRIC ACID), 8, 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

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
nitric acid	7697-37-2	1000	4008

SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
nitric acid	7697-37-2	1000	4008

SARA 311/312 Hazards : Oxidiser (liquid, solid or gas)
Acute toxicity (any route of exposure)
Skin corrosion or irritation
Serious eye damage or eye irritation

SARA 302 : The following components are subject to reporting levels established by SARA Title III, Section 302:
nitric acid 7697-37-2 24.9468 %

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:
nitric acid 7697-37-2 24.9468 %

California Prop. 65

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

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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

Further information

NFPA:

HEALTH	3
FLAMMABILITY	3
INSTABILITY	0
SPECIAL HAZARD.	OX

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

HMIS III:

HEALTH	3
FLAMMABILITY	3
PHYSICAL HAZARD	1

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

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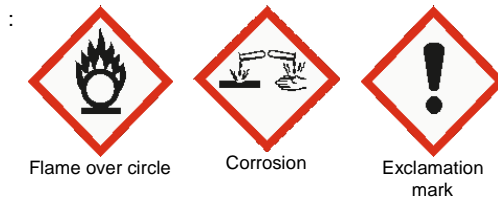
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OSHA - GHS Label Information:

Hazard pictograms



Signal word

Hazard statements

Precautionary statements

: **Danger:**
: May intensify fire; oxidizer. Harmful in contact with skin or if inhaled. Causes severe skin burns and eye damage.
:
: **Prevention:** Keep away from heat. Keep/Store away from clothing/ combustible materials. 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/ protective clothing/ eye protection/ face protection.
: **Response:** IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. 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. Immediately call a POISON CENTER/doctor. 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 contaminated clothing and wash it before reuse. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

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

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