# **ZEP 45 PENETRATING LUBRICANT WITH PTFE 20N17 12CT**

Version 2.5 Revision Date 10/11/2023 Print Date 05/03/2024

#### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : ZEP 45 PENETRATING LUBRICANT WITH PTFE 20N17

12CT

Material number : 0000000000017401

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	brown
Odour	characteristic

#### **GHS Classification**

Gases under pressure : Compressed gas
Skin irritation : Category 2
Serious eye damage : Category 1
Skin sensitisation : Category 1
Carcinogenicity : Category 1B

Specific target organ toxicity - : Category 3 (Central nervous system)

single exposure

Signal word

**GHS** label elements

Hazard pictograms







Gas cylinder

: Danger

Hazard statements : H280 Contains gas under pressure; may explode if heated.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

Version 2.5 Revision Date 10/11/2023 Print Date 05/03/2024

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H350 May cause cancer.

#### Precautionary statements

#### : Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood

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.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

## Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P313 IF exposed or concerned: Get medical advice/attention.

P333 + P313 If skin irritation or rash 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:

P403 Store in a well-ventilated place.

P410 + P403 Protect from sunlight. Store in a well-ventilated place.

#### 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 [%]
trichloroethylene	79-01-6	>= 30 - < 50
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	>= 10 - < 20
Distillates (petroleum), straight-run middle	64741-44-2	>= 5 - < 10
Distillates (petroleum), hydrotreated middle	64742-46-7	>= 5 - < 10
Sulfonic acids, petroleum, sodium salts	68608-26-4	>= 3 - < 5
Sulfonic acids, petroleum, calcium salts	61789-86-4	>= 3 - < 5

# **ZEP 45 PENETRATING LUBRICANT WITH PTFE 20N17 12CT**

Version 2.5 Revision Date 10/11/2023 Print Date 05/03/2024

2-(2-butoxyethoxy)ethanol	112-34-5	>= 3 - < 5
carbon dioxide	124-38-9	>= 1 - < 3
pentyl acetate	628-63-7	>= 1 - < 3
2-methylbutyl acetate	624-41-9	>= 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.

Do not leave the victim unattended.

If inhaled : Consult a physician after significant exposure.

If unconscious, place in recovery position and seek medical

advice.

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 contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing

and shoes.

In case of eye contact : In case of contact, immediately flush eyes 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 : Do NOT induce vomiting.

Keep respiratory tract clear.

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.

Most important symptoms and effects, both acute and

delayed

: Effects are immediate and delayed.

Symptoms may include irritation, redness, pain, and rash. Symptoms may include central nervous system depression,

resulting in headache, nausea and/or dizziness.

Chronic effects are delayed and symptoms may not be

observed during an exposure.

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 : Alcohol-resistant foam

Carbon dioxide (CO2)

Dry chemical

# **ZEP 45 PENETRATING LUBRICANT WITH PTFE 20N17 12CT**

Version 2.5 Revision Date 10/11/2023 Print Date 05/03/2024

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

: Carbon dioxide (CO2) Carbon monoxide

Smoke

Chlorine compounds

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.

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

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 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.

Version 2.5 Revision Date 10/11/2023 Print Date 05/03/2024

Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national regulations.

Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

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.

Keep in a cool, well-ventilated place.

Observe label precautions.

Electrical installations / working materials must comply with

the technological safety standards.

Materials to avoid : Oxidizing agents

#### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value type	Control	Basis
		(Form of	parameters /	
		exposure)	Permissible	
			concentration	
trichloroethylene	79-01-6	TWA	10 ppm	ACGIH
		STEL	25 ppm	ACGIH
		TWA	100 ppm	OSHA Z-2
		CEIL	200 ppm	OSHA Z-2
		Peak	300 ppm	OSHA Z-2
		TWA	50 ppm	OSHA P0
			270 mg/m3	
		STEL	200 ppm	OSHA P0
			1,080 mg/m3	
		STEL	100 ppm	CAL PEL
			537 mg/m3	
		С	300 ppm	CAL PEL
		PEL	25 ppm	CAL PEL
			135 mg/m3	
Distillates (petroleum),	64742-52-5	TWA (Mist)	5 mg/m3	OSHA Z-1
hydrotreated heavy naphthenic				
		TWA	5 mg/m3	ACGIH
		(Inhalable		
		fraction)		
2-(2-butoxyethoxy)ethanol	112-34-5	TWA	10 ppm	ACGIH
		(Inhalable		
		fraction and		
		vapor)		
carbon dioxide	124-38-9	TWA	5,000 ppm	ACGIH
		STEL	30,000 ppm	ACGIH
		TWA	5,000 ppm	NIOSH REL

# **ZEP 45 PENETRATING LUBRICANT WITH PTFE 20N17 12CT**

Version 2.5 Revision Date 10/11/2023 Print Date 05/03/2024

			9,000 mg/m3	
		ST	30,000 ppm 54,000 mg/m3	NIOSH REL
		TWA	5,000 ppm 9,000 mg/m3	OSHA Z-1
		TWA	10,000 ppm 18,000 mg/m3	OSHA P0
		STEL	30,000 ppm 54,000 mg/m3	OSHA P0
		PEL	5,000 ppm 9,000 mg/m3	CAL PEL
		STEL	30,000 ppm 54,000 mg/m3	CAL PEL
pentyl acetate	628-63-7	TWA	100 ppm 525 mg/m3	NIOSH REL
		TWA	100 ppm 525 mg/m3	OSHA Z-1
		TWA	100 ppm 525 mg/m3	OSHA P0
2-methylbutyl acetate	624-41-9	TWA	50 ppm	ACGIH
		STEL	100 ppm	ACGIH

## Biological occupational exposure limits

Component	CAS-No.	Control	Biological	Sampling	Permissible	Basis
		parameters	specimen	time	concentration	
TRICHLOROETHENE	79-01-6	Trichloroace	Urine	End of	15 mg/l	ACGIH BEI
		tic acid		shift at		
				end of		
				workwee		
				k		
TRICHLOROETHENE		Trichloroeth	In blood	End of	0.5 mg/l	ACGIH BEI
		anol		shift at		
				end of		
				workwee		
				k		
TRICHLOROETHENE		Trichloroeth	In end-	End of		ACGIH BEI
		ylene	exhaled air	shift at		
				end of		
				workwee		
				k		

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 : Tightly fitting safety goggles

# **ZEP 45 PENETRATING LUBRICANT WITH PTFE 20N17 12CT**

Version 2.5 Revision Date 10/11/2023 Print Date 05/03/2024

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 : brown

Odour : characteristic
Odour Threshold : No data available
pH : Not applicable

Boiling point : 87.22 °C

Flash point

Not applicable

Evaporation rate : < 1

Flammability (solid, gas,

liquid)

: Not classified as a flammability hazard

Upper explosion limit : Not applicable

Lower explosion limit : Not applicable

Vapour pressure : Not applicable

Relative vapour density : No data available

Density : 1.137 g/cm3

Solubility(ies)

Water solubility : insoluble

Partition coefficient: n-

octanol/water

: No data available

Auto-ignition temperature : not determined

Thermal decomposition : No data available

Viscosity

Viscosity, dynamic : Not applicable
Heat of combustion : 20.59 kJ/g

Version 2.5 Revision Date 10/11/2023 Print Date 05/03/2024

#### **SECTION 10. STABILITY AND REACTIVITY**

Reactivity : Stable

Chemical stability : Stable under normal conditions.

Possibility of hazardous

reactions

: Vapours may form explosive mixture with air.

No decomposition if stored and applied as directed.

Conditions to avoid : Heat, flames and sparks.

Extremes of temperature and direct sunlight.

Incompatible materials : Metals

Oxidizing agents

Hazardous decomposition

products

: Carbon monoxide, carbon dioxide and unburned

hydrocarbons (smoke).

Chlorine Phosgene

Hydrogen chloride gas

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

#### **Potential Health Effects**

Aggravated Medical

Condition

: None known.

Symptoms of Overexposure : Effects are immediate and delayed.

Symptoms may include irritation, redness, pain, and rash. Symptoms may include central nervous system depression.

resulting in headache, nausea and/or dizziness.

Chronic effects are delayed and symptoms may not be

observed during an exposure.

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 Group 1: Carcinogenic to humans

trichloroethylene 79-01-6

ACGIH Suspected human carcinogen

trichloroethylene 79-01-6

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 Known to be human carcinogen

trichloroethylene 79-01-6

# **ZEP 45 PENETRATING LUBRICANT WITH PTFE 20N17 12CT**

Version 2.5 Revision Date 10/11/2023 Print Date 05/03/2024

#### Acute toxicity

**Product:** 

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

Method: Calculation method

**Components:** 

trichloroethylene:

Acute oral toxicity : LD50 Oral Rat: 4,920 mg/kg

Acute inhalation toxicity : LC50 Mouse: 8450 ppm

Exposure time: 4 h

Acute dermal toxicity : LD50 Dermal Rabbit: > 20,000 mg/kg

**Distillates (petroleum), hydrotreated heavy naphthenic:**Acute oral toxicity : LD50 Rat: > 5,000 mg/kg

Acute inhalation toxicity : LC50 Rat: > 5 mg/l

Exposure time: 4 h

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

#### Skin corrosion/irritation

Product:

Remarks: Irritating to skin.

## Serious eye damage/eye irritation

**Product:** 

Remarks: Severe eye irritation

### Respiratory or skin sensitisation

**Product:** 

Remarks: Causes sensitisation.

# **Components:**

Distillates (petroleum), straight-run middle:

Classification: May cause sensitisation by skin contact.

# Germ cell mutagenicity

No data available

Carcinogenicity

No data available

# Reproductive toxicity

No data available

# **ZEP 45 PENETRATING LUBRICANT WITH PTFE 20N17 12CT**

Version 2.5 Revision Date 10/11/2023 Print Date 05/03/2024

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Aspiration toxicity

No data available

**Further information** 

**Product:** 

Remarks: No data available

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting., Concentrations substantially above the TLV value may cause narcotic effects., Solvents may degrease the skin.

#### **SECTION 12. ECOLOGICAL INFORMATION**

### **Ecotoxicity**

No data available

Persistence and degradability

No data available

Bioaccumulative potential

**Product:** 

Partition coefficient: n-

: Remarks: No data available

octanol/water <u>Components:</u> trichloroethylene:

Partition coefficient: n-

: log Pow: 2.29

octanol/water

2-(2-butoxyethoxy)ethanol:

Partition coefficient: n- : Pow: 1

octanol/water pentyl acetate:

Partition coefficient: n- : log Pow: 2.3

octanol/water

Mobility in soil

No data available

Other adverse effects

No data available

**Product:** 

Regulation 40 CFR Protection of Environment; Part 82 Protection of

# **ZEP 45 PENETRATING LUBRICANT WITH PTFE 20N17 12CT**

Version 2.5 Revision Date 10/11/2023 Print Date 05/03/2024

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.

#### **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):

UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, (6.1), - Limited quantity

Transportation Regulation: IMDG (Vessel):

UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, (6.1), - Limited quantity

Transportation Regulation: IATA (Cargo Air):

UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, (6.1), - Limited quantity

Transportation Regulation: IATA (Passenger Air):

UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, (6.1), - Limited quantity

Transportation Regulation: TDG (Canada):

UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, (6.1),

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.

# **ZEP 45 PENETRATING LUBRICANT WITH PTFE 20N17 12CT**

Version 2.5 Revision Date 10/11/2023 Print Date 05/03/2024

#### **SECTION 15. REGULATORY INFORMATION**

TSCA list : The following substance(s) is/are subject to TSCA 12(b) export

notification requirements:

trichloroethylene 79-01-6

No substances are subject to a Significant New Use Rule.

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

#### **CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
trichloroethylene	79-01-6	100	212

#### 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 Respiratory or skin sensitisation

Carcinogenicity

Specific target organ toxicity (single or repeated exposure)

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 : The following components are subject to reporting levels

established by SARA Title III, Section 313:

trichloroethylene 79-01-6 47 % 2-(2-butoxyethoxy)ethanol 112-34-5 4.46 %

#### California Prop. 65



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

Version 2.5 Revision Date 10/11/2023 Print Date 05/03/2024

## **Inventory Acronym and Validity Area Legend:**

TSCA (USA), DSL (Canada), NDSL (Canada)

#### **SECTION 16. OTHER INFORMATION**

#### **Further information**

### NFPA:

HEALTH	3
FLAMMABILITY	1
INSTABILITY	0
SPECIAL HAZARD.	

<sup>0 =</sup> not significant, 1 = Slight,

### HMIS III:

HEALTH	2
FLAMMABILITY	1
PHYSICAL HAZARD	3

<sup>0 =</sup> not significant, 1 = Slight,

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

Hazard pictograms

Signal word Hazard statements



Health hazard



mark

Gas cylinder Health ha

· Danger

: Contains gas under pressure; may explode if heated. Causes skin irritation. May cause

an allergic skin reaction. Causes serious eye irritation. May cause drow siness or

dizziness. May cause cancer.

Precautionary statements

<sup>2 =</sup> Moderate, 3 = High

<sup>4 =</sup> Extreme

<sup>2 =</sup> Moderate, 3 = High

<sup>4 =</sup> Extreme, \* = Chronic

# **ZEP 45 PENETRATING LUBRICANT WITH PTFE 20N17 12CT**

Version 2.5 Revision Date 10/11/2023 Print Date 05/03/2024

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapours/spray. Wash skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. Response: IF ON SKIN: Wash with plenty of soap and water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/attention. If skin irritation or rash occurs: Get medical advice/attention persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

**Storage:** Store in a well-ventilated place. Protect from sunlight. Store in a well-ventilated place.

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

Version:	2.5
Revision Date:	10/11/2023
Print Date:	05/03/2024

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.