# PETRO CHEMICAL FUEL INJECTOR AND CARBURETOR SYSTEM CLEANER

Version 3.1 Revision Date 10/01/2023 Print Date 04/27/2025

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

Material name : PETRO CHEMICAL FUEL INJECTOR AND CARBURETOR

SYSTEM CLEANER

Material number : 00000000500100045

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	liquid	
Colour	clear, colourless	
Odour	slight, mint-like	

#### **GHS Classification**

Flammable liquids : Category 2
Skin irritation : Category 2
Carcinogenicity : Category 2

**GHS** label elements

Hazard pictograms :



Health hazard



Flame I

Signal word : Danger

Hazard statements : H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H351 Suspected of causing cancer.

Precautionary statements : Prevention:

P201 Obtain special instructions before use.

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

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. 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.

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/ protective clothing/ eye

protection/ face protection.

#### Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

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 + P235 Store in a well-ventilated place. 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 [%]
tert-butyl methyl ether	1634-04-4	>= 90 - < 100
propan-2-ol	67-63-0	>= 3 - < 5
ethylbenzene	100-41-4	>= 0.1 - < 1

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 : If unconscious, place in recovery position and seek medical

advice.

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If symptoms persist, call a physician.

Move to fresh air.

Oxygen or artificial respiration if needed.

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

Wash off with soap and water. If on clothes, remove clothes.

Wash off immediately with plenty of water for at least 15

minutes.

In case of eye contact : Remove contact lenses.

Protect unharmed eye.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist. If in eyes, rinse with water for 15 minutes.

If swallowed : Keep respiratory tract clear.

Never give anything by mouth to an unconscious person.

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

DO NOT induce vomiting unless directed to do so by a

physician or poison control center.

Most important symptoms and effects, both acute and

delayed

: Effects are immediate and delayed.

Symptoms may include irritation, redness, pain, and rash.

Chronic effects are delayed and symptoms may not be

observed during an exposure.

Effects are dependent on exposure (dose, concentration,

contact time).

Suspected of causing cancer.

Causes skin 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 Water spray

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

Specific extinguishing

methods

: Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

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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 : Pre

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 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. 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.

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Materials to avoid : Do not store near acids.

Strong oxidizing agents

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

#### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
tert-butyl methyl ether	1634-04-4	TWA	50 ppm	ACGIH
		PEL	40 ppm 144 mg/m3	CAL PEL
propan-2-ol	67-63-0	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
		TWA	400 ppm 980 mg/m3	NIOSH REL
		ST	500 ppm 1,225 mg/m3	NIOSH REL
		TWA	400 ppm 980 mg/m3	OSHA Z-1
		TWA	400 ppm 980 mg/m3	OSHA P0
		STEL	500 ppm 1,225 mg/m3	OSHA P0
		PEL	400 ppm 980 mg/m3	CAL PEL
		STEL	500 ppm 1,225 mg/m3	CAL PEL
ethylbenzene	100-41-4	TWA	20 ppm	ACGIH
		STEL	125 ppm	ACGIH
		TWA	100 ppm 435 mg/m3	NIOSH REL
		ST	125 ppm 545 mg/m3	NIOSH REL
		TWA	100 ppm 435 mg/m3	OSHA Z-1
		TWA	100 ppm 435 mg/m3	OSHA P0
		STEL	125 ppm 545 mg/m3	OSHA P0
		PEL	5 ppm 22 mg/m3	CAL PEL
		STEL	30 ppm 130 mg/m3	CAL PEL

#### **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 workwee	40 mg/l	ACGIH BEI

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				k		
ETHYLBENZENE	100-41-4	Sum of mandelic acid and phenyl glyoxylic acid	Urine	End of shift (As soon as possible after exposure ceases)	0.15.g/g creatinine	ACGIH BEI
ETHYLBENZENE		Ethylbenzen e	In end- exhaled air	Not critical		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

Flash point

Protective gloves Material

The suitability for a specific workplace should be discussed Remarks

with the producers of the protective gloves.

Eye protection : Safety glasses

Ensure that eyewash stations and safety showers are close to

the workstation location.

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, colourless Odour : slight, mint-like Odour Threshold : No data available pΗ : No data available Melting point/freezing point : Not applicable **Boiling point** : 54.4 - 137.7 °C : -27.7 °C

Method: TCC

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Evaporation rate : No data available
Upper explosion limit : No data available
Lower explosion limit : No data available
Vapour pressure : No data available
Relative vapour density : No data available

Density : 0.56 g/cm3

Solubility(ies)

Water solubility : partly 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, kinematic : No data available

#### **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.

Vapours may form explosive mixture with air.

Conditions to avoid : Heat, flames and sparks.

Extremes of temperature and direct sunlight.

Incompatible materials : Acids

Strong oxidizing agents

Hazardous decomposition

products

: Carbon oxides

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

#### **Potential Health Effects**

Aggravated Medical

Condition

: None known.

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Symptoms of Overexposure : Effects are immediate and delayed.

Symptoms may include irritation, redness, pain, and rash. Chronic effects are delayed and symptoms may not be

observed during an exposure.

Effects are dependent on exposure (dose, concentration,

contact time).

Suspected of causing cancer.

Causes skin irritation.

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

Carcinogenicity:

IARC Group 2B: Possibly carcinogenic to humans

ethylbenzene 100-41-4

ACGIH Confirmed animal carcinogen with unknown relevance to

humans

tert-butyl methyl ether 1634-04-4 ethylbenzene 100-41-4

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

Skin corrosion/irritation

**Product:** 

Remarks: Irritating to skin.

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

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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

Bioaccumulative potential

Product:

Partition coefficient: n-

octanol/water

Components:

tert-butyl methyl ether:

Partition coefficient: n- :

octanol/water

: log Pow: 1.77

: Remarks: No data available

log Pow: 0.94

propan-2-ol:

Partition coefficient: n-

: log Pow: 0.05

octanol/water ethylbenzene:

Partition coefficient: n-

: Pow: 3.6

octanol/water

Mobility in soil

No data available

Other adverse effects

No data available

Product:

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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.

#### **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):

UN1993, Flammable liquids, n.o.s., (TERT-BUTYL METHYL ETHER), 3, II - Limited quantity

Transportation Regulation: IMDG (Vessel):

UN1993, FLAMMABLE LIQUID, N.O.S., (TERT-BUTYL METHYL ETHER), 3, II - Limited quantity

Transportation Regulation: IATA (Cargo Air):

UN1993, Flammable liquid, n.o.s., (TERT-BUTYL METHYL ETHER), 3, II - Limited quantity

Transportation Regulation: IATA (Passenger Air):

UN1993, Flammable liquid, n.o.s., (TERT-BUTYL METHYL ETHER), 3, II - Limited quantity

Transportation Regulation: TDG (Canada):

UN1993, FLAMMABLE LIQUID, N.O.S., (TERT-BUTYL METHYL ETHER), 3, II - 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.

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#### **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	Calculated product RQ
		(lbs)	(lbs)
tert-butyl methyl ether	1634-04-4	1000	1091

#### 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

Carcinogenicity

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:

tert-butyl methyl ether 1634-04-4 91.6251 % ethylbenzene 100-41-4 0.1688 %

#### California Prop. 65



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

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

#### **Further information**

#### NFPA:

HEALTH	2
FLAMMABILITY	3
INSTABILITY	0
SPECIAL HAZARD.	

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

#### HMIS III:

HEALTH	2*
FLAMMABILITY	3
PHYSICAL HAZARD	0

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

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

Hazard pictograms





Health hazard

Signal word

Hazard statements Highly flammable liquid and vapour. Causes skin irritation. Suspected of causing

Precautionary statements

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces,

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

<sup>4 =</sup> Extreme

<sup>2 =</sup> Moderate, 3 = High 4 = Extreme, \* = Chronic

# SAFETY DATA SHEET PETRO CHEMICAL FUEL INJECTOR AND CARBURETOR SYSTEM CLEANER

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sparks, open flames and other ignition sources. 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. Wash skin thoroughly after handling. Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF exposed or concerned: Get medical advice/ attention. If skin irritation occurs: Get medical advice/ attention. Take off contaminated clothing 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 cool.

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

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