

AJ0197 KIA EFI FUEL INJECTOR CLNR 20N7

Version 1.0

Revision Date 03/27/2015

Print Date 08/13/2015

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : Kia Fuel Injector Cleaner / Part #UM040 CH007

Material number : 00000000504200004

Manufacturer or supplier's details

Company : Zep Inc.

Address : 1310 Seaboard Industrial Blvd., NW
Atlanta, GA 30318

Telephone : 404-352-1680

Emergency telephone numbers
For SDS Information : Compliance Services 1-877-428-9937

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

SECTION 2. HAZARDS IDENTIFICATION
Emergency Overview

Appearance	Aerosol containing a compressed gas
Colour	colourless
Odour	ammoniacal

GHS Classification

Flammable aerosols : Category 1
 Gases under pressure : Compressed gas
 Acute toxicity (Inhalation) : Category 4
 Skin corrosion : Category 1A
 Serious eye damage : Category 1
 Carcinogenicity : Category 2
 Reproductive toxicity : Category 1B
 Specific target organ toxicity - single exposure : Category 3 (Central nervous system)
 Specific target organ toxicity - repeated exposure (Inhalation) : Category 2

GHS Label element

Hazard pictograms : 

Signal word : Danger

Hazard statements : H222 Extremely flammable aerosol.
H280 Contains gas under pressure; may explode if heated.

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H314 Causes severe skin burns and eye damage.
 H332 Harmful if inhaled.
 H336 May cause drowsiness or dizziness.
 H351 Suspected of causing cancer.
 H360 May damage fertility or the unborn child.
 H373 May cause damage to organs through prolonged or repeated exposure if inhaled.

Precautionary statements

: **Prevention:**

P201 Obtain special instructions before use.
 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.
 P211 Do not spray on an open flame or other ignition source.
 P251 Pressurized container: Do not pierce or burn, even after use.
 P260 Do not breathe 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.
 P281 Use personal protective equipment as required.

Response:

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
 P304 + P340 + P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
 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 or doctor/ physician.
 P308 + P313 IF exposed or concerned: Get medical advice/ attention.
 P363 Wash contaminated clothing before reuse.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
 P405 Store locked up.
 P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

Disposal:

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

Potential Health Effects**Carcinogenicity:****IARC**

Group 2B: Possibly carcinogenic to humans

ethylbenzene

100-41-4

ACGIH

Confirmed animal carcinogen with unknown relevance to humans

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OSHA	ethylbenzene No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.	100-41-4
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.	

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical Name	CAS-No.	Concentration [%]
toluene	108-88-3	>= 30 - < 50
Naphtha (petroleum), light alkylate	64741-66-8	>= 30 - < 50
triethylamine	121-44-8	>= 5 - < 10
propan-2-ol	67-63-0	>= 5 - < 10
1-methyl-2-pyrrolidone	872-50-4	>= 1 - < 5
ammonia, anhydrous	7664-41-7	>= 0.1 - < 1
ethylbenzene	100-41-4	>= 0.1 - < 1

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	: Call a physician or poison control centre immediately. Keep patient warm and at rest. If unconscious place in recovery position and seek medical advice. Keep respiratory tract clear.
In case of skin contact	: Wash off immediately with plenty of water for at least 15 minutes. If on skin, rinse well with water. If on clothes, remove clothes.
In case of eye contact	: Small amounts splashed into eyes can cause irreversible tissue damage and blindness. If in eyes, rinse with water for 15 minutes. Continue rinsing eyes during transport to hospital. 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. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

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Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Alcohol-resistant foam
Carbon dioxide (CO₂)
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 : 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 : 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.

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SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : 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.
 Open drum carefully as content may be under pressure.
 Dispose of rinse water in accordance with local and national regulations.
 Do not breathe vapours or spray mist.
 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 dry, cool 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 : 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
toluene	108-88-3	TWA	20 ppm	ACGIH
		TWA	100 ppm 375 mg/m ³	NIOSH REL
		ST	150 ppm 560 mg/m ³	NIOSH REL
		TWA	200 ppm	OSHA Z-2
		CEIL	300 ppm	OSHA Z-2
		Peak	500 ppm	OSHA Z-2
		TWA	100 ppm 375 mg/m ³	OSHA P0
triethylamine	121-44-8	STEL	150 ppm 560 mg/m ³	OSHA P0
		TWA	1 ppm	ACGIH
		STEL	3 ppm	ACGIH
		TWA	25 ppm 100 mg/m ³	OSHA Z-1
		STEL	15 ppm	OSHA P0

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			60 mg/m ³	
		TWA	10 ppm	OSHA P0
			40 mg/m ³	
propan-2-ol	67-63-0	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
		TWA	400 ppm	NIOSH REL
			980 mg/m ³	
		ST	500 ppm	NIOSH REL
			1,225 mg/m ³	
		TWA	400 ppm	OSHA Z-1
			980 mg/m ³	
		TWA	400 ppm	OSHA P0
			980 mg/m ³	
		STEL	500 ppm	OSHA P0
			1,225 mg/m ³	
1-methyl-2-pyrrolidone	872-50-4	TWA	10 ppm	US WEEL
xylene	1330-20-7	TWA	100 ppm	ACGIH
		STEL	150 ppm	ACGIH
ethylbenzene	100-41-4	TWA	100 ppm	ACGIH
		STEL	125 ppm	ACGIH
		TWA	100 ppm	NIOSH REL
			435 mg/m ³	
		ST	125 ppm	NIOSH REL
			545 mg/m ³	
		TWA	100 ppm	OSHA Z-1
			435 mg/m ³	
		TWA	100 ppm	OSHA P0
			435 mg/m ³	
		STEL	125 ppm	OSHA P0
			545 mg/m ³	

Biological occupational exposure limits

Component	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
METHYLBENZENE	108-88-3	Toluene	In blood	Prior to last shift of workweek	0.02 mg/l	ACGIH BEI
METHYLBENZENE		Toluene	Urine	End of shift (As soon as possible after exposure ceases)	0.03 mg/l	ACGIH BEI
METHYLBENZENE		o-Cresol	Urine	End of shift (As soon as possible after exposure ceases)	0.3 mg/g	ACGIH BEI
Remarks: Creatinine						
PROPAN-2-OL	67-63-0	Acetone	Urine	End of shift at	40 mg/l	ACGIH BEI

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				end of workweek		
N-METHYL-2-PYRROLIDINONE	872-50-4	5-Hydroxy-N-methyl-2-pyrrolidone	Urine	End of shift (As soon as possible after exposure ceases)	100 mg/l	ACGIH BEI
ETHYLBENZENE	100-41-4	Sum of mandelic acid and phenyl glyoxylic acid	Urine	End of shift at end of workweek	700 mg/g	ACGIH BEI
Remarks: Creatinine						
ETHYLBENZENE		Ethylbenzene	In end-exhaled air	Not critical		ACGIH BEI

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. In the case of dust or aerosol formation use respirator with an approved filter.
- Hand protection
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
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 : colourless
- Odour : ammoniacal

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Odour Threshold	: no data available
pH	: not applicable
Melting point/freezing point	: no data available
Boiling point	: no data available
Flash point	: no data available
Evaporation rate	: no data available
Flammability (solid, gas)	: Extremely flammable aerosol.
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: 6,894 - 7,928 hPa
Relative vapour density	: no data available
Density	: no data available
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
Heat of combustion	: 39.30 kJ/g

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.
Incompatible materials	: Strong oxidizing agents Acids
Hazardous decomposition products	: Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

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SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity****Product:**

Acute oral toxicity : Acute toxicity estimate : 3,426 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate : 4.88 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : 3,057 mg/kg
Method: Calculation method

Components:**Naphtha (petroleum), light alkylate:**

Acute oral toxicity : LD50 rat: 4,820 mg/kg

Acute inhalation toxicity : LC50 rat: > 5,020 mg/l
Exposure time: 4 h

LC50 rat: > 4,980 mg/l
Exposure time: 4 h

LC50 rat: > 4.96 mg/l
Exposure time: 4 h

Acute dermal toxicity : LD50 rabbit: > 1,900 mg/kg

propan-2-ol:

Acute oral toxicity : LD50 Oral rat: 4,396 mg/kg
Method: Calculation method

1-methyl-2-pyrrolidone:

Acute oral toxicity : LD50 Oral rat: 3,914 mg/kg

Acute dermal toxicity : LD50 Dermal rabbit: 8,000 mg/kg

Skin corrosion/irritation**Product:**

Remarks: Extremely corrosive and destructive to tissue.

Serious eye damage/eye irritation

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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

toluene:**Naphtha (petroleum), light alkylate:****triethylamine:****propan-2-ol:****1-methyl-2-pyrrolidone:****ammonia, anhydrous:****ethylbenzene:****STOT - single exposure**

no data available

STOT - repeated exposure

no data available

Aspiration toxicity

no data available

Further information**Product:**

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

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octanol/water

Components:**toluene :**

Partition coefficient: n- : Pow: 2.73

octanol/water

1-methyl-2-pyrrolidone :

Partition coefficient: n- : log Pow: -0.46

octanol/water

ethylbenzene :

Partition coefficient: n- : Pow: 3.6

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 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., Toxic 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, 2.1,
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Transportation Regulation: IMDG (Vessel):
UN1950, AEROSOLS, 2.1,

Transportation Regulation: IATA (Cargo Air):
UN1950, Aerosols, flammable, 2.1,

Transportation Regulation: IATA (Passenger Air):
UN1950, Aerosols, flammable, 2.1,

Transportation Regulation: TDG (Canada):
UN1950, AEROSOLS, 2.1,

SECTION 15. REGULATORY INFORMATION
EPCRA - Emergency Planning and Community Right-to-Know Act
CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
toluene	108-88-3	1000	2831

SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
ammonia, anhydrous	7664-41-7	100	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 311/312 Hazards : Fire Hazard
Sudden Release of Pressure Hazard
Acute Health Hazard
Chronic Health Hazard

SARA 302 : The following components are subject to reporting levels established by SARA Title III, Section 302:
ammonia, anhydrous 7664-41-7 0.4415 %

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:
toluene 108-88-3 35.3272 %
triethylamine 121-44-8 9.8131 %
1-methyl-2-pyrrolidone 872-50-4 2.4532 %
ethylbenzene 100-41-4 0.1913 %

California Prop 65 WARNING! This product contains a chemical known to the State of California to cause cancer.
ethylbenzene 100-41-4
WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

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toluene	108-88-3
1-methyl-2-pyrrolidone	872-50-4
methanol	67-56-1

The components of this product are reported in the following inventories:

TSCA	On TSCA Inventory
DSL	This product contains one or several components that are not on the Canadian DSL nor NDSL.
AICS	Not in compliance with the inventory
NZIoC	Not in compliance with the inventory
PICCS	Not in compliance with the inventory
IECSC	Not in compliance with the inventory

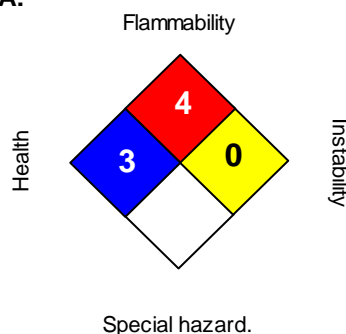
Inventory Acronym and Validity Area Legend:

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information

NFPA:



HMIS III:

HEALTH	3*
FLAMMABILITY	4
PHYSICAL HAZARD	2

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

OSHA GHS Label Information:

Hazard pictograms :



Signal word :

Hazard statements :

Precautionary statements :

Danger:
Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Causes severe skin burns and eye damage. Harmful if inhaled. May cause drowsiness or dizziness. Suspected of causing cancer. May damage fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure if inhaled.

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Wash skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/

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protective clothing/ eye protection/ face protection. Use personal protective equipment as required.

Response: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician. 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 or doctor/ physician. IF exposed or concerned: Get medical advice/ attention. Wash contaminated clothing before reuse.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

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

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Zep Inc. markets products under well recognized and established brand names such as Zep®, Zep Commercial®, Zep Professional®, Enforcer®, National Chemical™, Selig™, Misty®, Next Dimension™, Petro®, i-Chem®, TimeMist®, TimeWick™, MicrobeMax®, Country Vet®, Konk®, Original Bike Spirits®, Blue Coral®, Black Magic®, Rain-X®, Niagara National™, FC Forward Chemicals®, Rexodan®, Mykal™, and a number of private labeled brands.