

To Our Customers:

The attached Safety Data Sheet (SDS) was prepared by the vendor of the product you purchased through one of our divisions. We used the manufacturer's electronic document directly or scanned a paper copy and generated a file for our automated SDS delivery system.

All statements, technical information, and recommendations contained therein are solely that of the manufacturer of the product. We at Zep Inc. did not verify the accuracy and completeness of the statements and do not warrantee or guarantee the information. We provide vendor SDSs to assist our customers in their compliance efforts. The attached document is in compliance with one of the respective country regulatory requirements noted below:

The OSHA Hazard Communication Standard (in the United States) The Hazardous Products Regulations (in Canada)

We made every effort to deliver all of the information prepared by the manufacturer. We cannot anticipate all conditions under which this information will be used. If you have any questions about the statements on the SDS, please contact the company shown on the document.

Zep Inc. assumes no liability or responsibility for loss or damage resulting from the improper use or handling of this product, from incompatible product combinations, or from the failure to follow instructions, warnings, and advisories in the manufacturer's product label and Safety Data Sheet.

Sincerely,

Product Stewardship Team Zep Inc.

Kia Long Life Antifreeze / Coolant

SDS No. 10439 Revision No. 01

Date: March 25, 2015 Revision Date: October 27, 2015

Kia Long Life Antifreeze / Coolant

SECTION 1: IDENTIFICATION

1.1 Product identifier

Product: Kia Long Life Antifreeze / Coolant

Synonyms: None

Product Part Number: UM040 CH 012

1.2 Relevant identified uses of the substance or mixture and advised against

Antifreeze/Coolant

1.3 Detail of the supplier of the safety data sheet

Manufacturer Name CCI MANUFACTURING IL CORPORATION

Address 15550 Canal Bank Road, Lemont, IL 60439

Telephone (630) 739-0606

1.4 Emergency telephone number

CCI: 1-630-739-0606

INFOTRAC: 1-800-535-5053 - DOMESTIC

1-352-323-3500 - INTERNATIONAL

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification:

Health Hazard Classification:

Acute Toxicity(Oral)

Acute Toxicity(Dermal)

Not Classified

Not Classified

Acute Toxicity(Inhalation-Gases) -

Acute Toxicity(Inhalation-Vapors)

Acute Toxicity(Inhalation-Dusts)

Classification Not Possible
Classification Not Possible
Classification Not Possible

Skin Corrosion/IrritationCategory 2Serious eye damage/Eye irritationCategory 2Respiratory or skin sensitizationCategory 1

Germ cell mutagenicity
Carcinogenicity
Classification Not Possible
Reproductive toxicity
Classification Not Possible
Classification Not Possible

Specific target organ toxicity single exposure Category 1, 3
Specific target organ toxicity repeated or prolonged exposure Category 2

Aspiration hazard Classification Not Possible



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Physical Hazard Criteria

Explosives Flammable gases Flammable aerosols Oxidizing gases Gases under pressure -

Flammable liquids Not Classified

Flammable solids -

Self-reactive chemicals -

Pyrophoric liquids Not Classified

Pyrophoric solids -

Self-heating chemicals Classification Not Possible

Chemicals which, in contact with water, emit flammable gases

Oxidizing liquids Classification Not Possible

Oxidizing solids -

Organic peroxides -

Corrosive to metals Not Classified

2.2 Label elements

Hazard Pictograms



Signal word Hazard statements



Danger

Causes serious eye irritation

Causes skin irritation

May cause an allergic skin reaction

Causes damage to organs (central nerves, kidneys, respiratory tract)

May cause respiratory irritation; or may cause drowsiness or dizziness

May cause damage to organs (kidneys) through prolonged or repeated exposure

Precautionary statements

Prevention

Wash contact areas thoroughly after handling.

Wear eye protection/face protection.

Wear protective gloves.

Do not breathe mist/vapors/spray.

Contaminated work clothing must not be allowed out of the workplace.

Do not eat, drink or smoke when using this product.

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Use only outdoors or in a well-ventilated area.

Response

If in eyes: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

If on skin: Wash with plenty of water.

If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

If exposed: Call a poison center/doctor.

Get medical advice/attention if you feel unwell.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

Call a poison center/doctor if you feel unwell.

Storage

Store locked up.

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

Disposal

Dispose of contents/container in accordance with applicable federal, state and local regulations.

2.3 Other hazards

Other hazards Data not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS						
3.2 Mixtures						
Components	CAS No.	Nominal %	<u>Hazard</u>	PEL/TLV	<u>Hazard</u>	
			Code			
Ethylene	107-21-1	85 - 94 %	A	Ceiling:	Respiratory irritant	
Glycol				100mg/m	Ingestion may produce	
•				[Aerosol only]	liver, brain and kidney	
					damage.	
Diethylene	111-46-6	Less than 5%	A	None	Ingestion may produce	
Glycol					kidney damage.	
Hydrated	pro-	Less than 7%	N/A	None	None noted.	
inorganic	prietary					
acid, organic						
acid salts						
Water	7732-18-5	Less than 5%	N/A	None	None noted	

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Proprietary items on this SDS are designated as trade secrets. Requests for disclosure of trade secret information will be made in accordance with the provisions contained in OSHA 29 CFR 1910.1200(i).

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

<u>Swallowing</u>: If victim is conscious and able to swallow, quickly have victim drink water or milk to dilute.

Do NOT give sodium bicarbonate, fruit juices or vinegar. NEVER give anything by mouth if victim is unconscious or having convulsions. Induce vomiting only if advised by physician or

Poison Control Center. CALL PHYSICIAN OR POISON CONTROL CENTER

IMMEDIATELY.

<u>Skin Contact</u>: Immediately flush skin with plenty of water while removing contaminated clothing.

Eye Contact : Immediately flush eyes with plenty of cool water for at least 15 minutes. Do NOT permit

victim to rub eyes. GET MEDICAL ATTENTION IMMEDIATELY.

Inhalation : Immediately remove victim to fresh air. If victim has stopped breathing give artificial

respiration, preferably mouth-to-mouth. GET MEDICAL ATTENTION IMMEDIATELY.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Individuals should perform only those firefighting procedures for which they have been trained. Use water spray, dry chemical, foam or carbon dioxide. Use water to keep fire-exposed containers cool. If a spill or leak has not ignited, use water spray to disperse the vapors. Water spray may be used to flush spills away from fire and diluted spills to noncombustible proportions(see warning on water spray on hot glycol below.)

5.2 Special hazards arising from the substance or mixture

Data not available

5.3 Advice for firefighters

To prevent possible storage container rupture, do not permit to freeze. Incompatible with strong acids, oxidizers, bases and chromium trioxide, potassium permanganate, and sodium peroxide.

Water spray may cause foaming of hot glycol so indirect application of water spray or use of other extinguishing media should be used on hot glycol.

SECTION 6: ACCIDENTAL RELEASE MEASURES

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6.1 Personal precautions, protective equipment and emergency procedures

For personal protection, see section 8. In case of spills, beware of slippery floors and surfaces.

6.2 Environmental precautions

The product should not be dumped in nature but collected and delivered according to agreement with the local authorities.

6.3 Method and material for containment cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions and safe handling

- Do not expose children and pets to this material.
- After handling product, wash thoroughly with soap and water before drinking, eating, or smoking.
- Keep away from open flames.

7.2 Conditions for safe storage, including any incompatibilities

- To prevent possible storage container rupture, do not permit to freeze. Incompatible with strong acids, oxidizers, bases and chromium trioxide, potassium permanganate, and sodium peroxide.

7.3 Specific end use(s)

The identified uses for this product are detailed in section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Component	CAS No.	Source	Exposure Limit	Notes
Ethylene glycol	107-21-1	US OSHA	None	None
		US ACGIH	100 mg/m3 TLV	Ceiling Limit for Aerosols Only; A4 - Not classifiable as a human carcinogen
		US OSHA	None	None



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Diethylene Glycol	111-46-6	US ACGIH	None	None
		US AIHA (WEEL)	10 mg/m^3	TWA

8.2 Exposure controls

Control Measures: Handle in the presence of adequate ventilation. Engineering controls should be used

whenever feasible to maintain concentrations below acceptable exposure criteria,

including enclosures and local exhaust ventilation.

Respiratory Protection: Where exposure is likely to exceed acceptable criteria and engineering controls are

not feasible, use NIOSH/MSHA approved respiratory protection equipment.

Respirators should be selected based on the form and concentration of contaminants

in air and in accordance with OSHA (29 CFR 1910.134)

Protective Clothing: Wear gloves and protective clothing which are impervious to the product for the

duration of exposure if there is potential for skin contact.

Eye Protection: Wear safety glasses meeting the specifications of ANSI Standard Z87.1 where no

contact with the eye is anticipated. Chemical safety goggles meeting the specification

of ANSI Standard Z87.1 should be worn whenever there is the possibility of

splashing or other contact with the eyes.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information of basic physical and chemical properties

Appearance: Clear, slightly viscous, yellowish green dyed liquid

Odor: No characteristic odor
Odor threshold: Data not available
pH: 7.5 (50v/v%)

Freezing point: Lower than -15° C (5°F)

Initial boiling point

and boiling range: Higher than 149°C (300 °F)

Flash point: 126°C (259°F)
Evaporation rate: Data not available
Flammability(Solid, gas): Data not available

Upper/Lower flammability

or explosive limits: Data not available

Vapor pressure: Estimated 0.05 mmHg at 20°C

Vapor Density (Air = 1): Data not available

Density (20°C) : 1.13 g/cm^3

Solubility in Water: Infinite miscibility



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Partition coefficient

n-octanol/water: Data not available
Auto ignition temperature: Data not available
Decomposition temperature: Data not available
Viscosity: Data not available

9.2 Other information

None

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Hazardous Polymerization: Not likely to occur

Conditions and Materials to Avoid: Avoid concentrated strong acids, oxidizing agents and bases. Do not expose

to open flame.

10.2 Chemical stability

Generally stable

10.3 Possibility of hazardous reactions

Data not available

10.4 Conditions to avoid

Avoid heat, flames and other sources of ignition.

10.5 Incompatible materials

Data not available

10.6 Hazardous decomposition products

Hazardous Decomposition Products: If pyrolyzed, thermal decomposition products of residue may include C, CO,

CO2, H2O, NH3, organic vapors and nitrogen-containing.

SECTION 11:TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Inhalation: Breathing excessive levels of the vapor or mist can irritate the respiratory tract. Excessive vapor

concentrations of the major component (ethylene glycol), might be generated during heating of this material, have occasionally been reported to cause adverse effects on the blood-forming system and the

nervous system.

Ingestion: The acute oral toxicities of the main components of this mixture are as follows:

Ethylene Glycol:

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The lowest dose reported to produce death in humans was estimated to be 1,560 mg/kg body weight; for a person weighing 150 pounds, this would be equivalent to drinking about three fluid ounces of pure ethylene glycol in a short period of time.

Acute oral LD50's = 4,700 mg/kg (rats)

5,500 mg/kg (mouse)

Diethylene Glycol

Acute oral LD50's = 12,600 mg/kg (rat)

23,700 mg/kg (mouse)

Eye Based on the pH and irritation potential of this mixture's constituents, the mist or liquid can be

Contact: expected to cause mild to moderate irritation or inflammation of the eyes

Skin The acute dermal LD50 of the major component (ethylene glycol) of this product is

Contact: 10,600mg/kg(rabbits). Based on the pH and the irritation potential of this mixture's constituents, the

mist or liquid can be expected to cause mild to moderate irritation of the skin.

Chronic Effects: No chronic or delayed effects have been identified.

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.

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.

OSHA: 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.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Ecological information of the product : Data not available

Ecological information of the main ingredient of the product

Ethylene Glycol:

LC50 - Oncorhynchus mykiss (rainbow trout) - 18,500 mg/l - 96 h

Diethylene Glycol:

LC50 - Pimephales promelas (fathead minnow) - 75,200 mg/l - 96 h

12.2 Persistence and degradability

Degradation half life: Readily biodegradable

12.3 Bioaccumulative potential

Bioaccumulative potential: Bioconcentration potential is low.

Comments to bioaccumulation Log Pow: -0,30

12.4 Mobility in soil

Mobility: The product is miscible with water. May spread in water systems.

12.5 Results of PBT and vPvB assessment

PBT assessment results: This substance is not classified as PBT or vPvB.

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12.6 Other adverse effects

Other adverse effects / Remarks: None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal : Disposal should be made in accordance with applicable federal, state and local regulations. All

recovered material should be packaged, labeled, transported, and disposed of or reclaimed in conformance with good engineering practices. Avoid land filling of liquids. Reclaim where

possible.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number

UN3082

14.2 UN proper shipping name

Environmentally Hazardous Substance Liquid n.o.s.

(ethylene glycol), 9, UN3082, III

14.3 Transport hazard class(es)

DOT Classification (Bulk): Class 9 miscellaneous

DOT Classification (Non-bulk) : Not regulated IATA (Non-bulk) : Not regulated IMDG Code (Non-bulk) : Not regulated

14.4 Packaging group

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14.5 Environmental hazards

Marine pollutant: No

Poison Inhalation Hazard: No

14.6 Special precautions for user

Data not available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Data not available

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Toxic Substance Control Act

This product is a mixture: therefore, it is not listed in the TSCA Inventory of Chemical Substances. All of the components of the mixture are listed in the TSCA Inventory of Chemical Substances.

SARA Hazard Categories (as defined in Section 311/312)

Health Immediate (Acute) and Delayed (Chronic)

Physical None

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The product contains greater than 85% ethylene glycol (CAS# 107-21-1) which is subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

California Proposition 65

This product contains the following Proposition 65 Chemicals.

ComponentCAS#California Prop 65Ethylene Glycol (ingested)107-21-1Reproductive Toxicity

Bittering Agent

This product contains bittering agent.

SECTION 16: OTHER INFORMATION

NFPA Rating: Health (1) Fire (1) Reactivity (0) Preparation information: Issue date March 25, 2015

The information presented herein is believed to be factual as it has been derived from the works and opinions of people believed to be qualified experts; however, nothing contained in this information is to be taken as a warranty or representation for which CCI MANUFACTURING IL CORPORATION bears legal responsibility. The user should review any recommendation in the specific context of intended use to determine whether they are appropriate.