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SAFETY DATA SHEET		Revision Date: 05/21/2015
		Print Date: 5/30/2015
		SDS Number: R0318755
Zerex™ DEX COOL FORMULA ANTIFREEZE COOLANT		Version: 1.0
ZXEL1		

29 CFR 1910.1200 (OSHA HazCom 2012)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Trade name : Zerex™ DEX COOL FORMULA ANTIFREEZE COOLANT

Recommended use of the chemical and restrictions on use

Details of the supplier of the safety data sheet Ashland P.O. Box 2219 Columbus, OH 43216 United States of America EHS Customer Requests@ashland.com	Emergency telephone number 1-800-ASHLAND (1-800-274-5263) Regulatory Information Number 1-800-325-3751 Product Information 614-790-3333
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SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity (Oral) : Category 4
 Reproductive toxicity : Category 2
 Specific target organ systemic toxicity - repeated exposure (Oral) : Category 2 (Kidney, Liver)

GHS Label element

Hazard pictograms : 

Signal Word : Warning

Hazard Statements : Harmful if swallowed.
 Suspected of damaging fertility or the unborn child.
 May cause damage to organs (Kidney, Liver) through prolonged or repeated exposure if swallowed.

Precautionary Statements : **Prevention:**
 Obtain special instructions before use.

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

Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.

Wash skin thoroughly after handling.

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

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

Response:

IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.

IF exposed or concerned: Get medical advice/ attention.

Storage:

Store locked up.

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical Name	CAS-No.	Classification	Concentration (%)
ETHYLENE GLYCOL	107-21-1	Acute Tox. 4; H302 STOT RE 2; H373	93.55
DIETHYLENE GLYCOL	111-46-6	Acute Tox. 4; H302 STOT RE 2; H373	4.67
POTASSIUM 2-ETHYLHEXANOATE	3164-85-0	Skin Irrit. 2; H315 Repr. 2; H361	3.75

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.

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Call a POISON CENTRE or doctor/physician if exposed or you feel unwell.
 Show this safety data sheet to the doctor in attendance.
 Do not leave the victim unattended.

- If inhaled : If breathed in, move person into fresh air.
 If unconscious place in recovery position and seek medical advice.
 If symptoms persist, call a physician.
- In case of skin contact : Remove contaminated clothing. If irritation develops, get medical attention.
 If on skin, rinse well with water.
 Wash contaminated clothing before re-use.
- In case of eye contact : Flush eyes with water as a precaution.
 Remove contact lenses.
 Protect unharmed eye.
 If eye irritation persists, consult a specialist.
- If swallowed : Obtain medical attention.
 Rinse mouth with water.
 Do not give milk or alcoholic beverages.
 Never give anything by mouth to an unconscious person.
 If symptoms persist, call a physician.
- Most important symptoms and effects, both acute and delayed : Effects of acute ethylene glycol poisoning appear in three fairly distinct stages. The initial stage occurs shortly after exposure, lasts 6-12 hours, and is characterized by central nervous system effects (transient exhilaration, nausea, vomiting, and in severe cases, coma, convulsions, and possible death). The second stage lasts from 12-36 hours after exposure and is initiated by the onset of coma. This phase is characterized by tachypnea, tachycardia, mild hypotension, cyanosis, and in severe cases, pulmonary edema, bronchopneumonia, cardiac enlargement, and congestive failure. The final stage occurs 24-72 post-exposure and is characterized by renal failure, ranging from a mild increase in blood urea nitrogen and creatinine followed by recovery, to complete anuria with acute tubular necrosis that can lead to death. Oxaluria is found in most cases. The most significant laboratory finding in ethylene glycol intoxication is severe metabolic acidosis.
- Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:
 stomach or intestinal upset (nausea, vomiting, diarrhea)
 irritation (nose, throat, airways)
 Cough
 pain in the abdomen and lower back
 cyanosis (causes blue coloring of the skin and nails from lack of oxygen)

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lung edema (fluid buildup in the lung tissue)
acute kidney failure (sudden slowing or stopping of urine production)
Convulsions
Harmful if swallowed.
Suspected of damaging fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure if swallowed.

Notes to physician : This product contains ethylene glycol. Ethanol decreases the metabolism of ethylene glycol to toxic metabolites. Ethanol should be administered as soon as possible in cases of severe poisoning since the elimination half-life of ethylene glycol is 3 hours. If medical care will be delayed several hours, give the patient three to four 1-ounce oral "shots" of 86-proof or higher whiskey before or during transport to the hospital. Fomepizole (4-methylpyrazole) is an effective antagonist of alcohol dehydrogenase, and as such, may be used as an antidote in the treatment of ethylene glycol poisoning. Hemodialysis effectively removes ethylene glycol and its metabolites from the body.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Water spray
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 : Alcohols
Aldehydes
carbon dioxide and carbon monoxide
ethers
toxic fumes
Hydrocarbons
acetaldehyde
formaldehyde-like
potassium oxide

Specific extinguishing methods :

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Product is compatible with standard fire-fighting agents.

Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Ensure adequate ventilation.
Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

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).
Keep in suitable, closed containers for disposal.

Other information : Comply with all applicable federal, state, and local regulations.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Do not breathe vapours/dust.
Do not smoke.
Container hazardous when empty.
Avoid contact with skin and eyes.
Smoking, eating and drinking should be prohibited in the application area.
For personal protection see section 8.
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.
Observe label precautions.
Electrical installations / working materials must comply with the technological safety standards.

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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
ETHYLENE GLYCOL	107-21-1	Ceiling	100 mg/m3 Aerosol.	ACGIH
		TWA	10 mg/m3 Inhalable fraction and vapor	ACGIHLIS_P
DIETHYLENE GLYCOL	111-46-6	TWA	10 mg/m3	WEEL

Engineering measures : Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Personal protective equipment

Respiratory protection : A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

Hand protection
Remarks

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

Eye protection

: Not required under normal conditions of use. Wear splash-proof safety goggles if material could be misted or splashed into eyes.

Skin and body protection

: Wear as appropriate:
impervious clothing
Safety shoes
Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Wear resistant gloves (consult your safety equipment supplier).

Hygiene measures

: Wash hands before breaks and at the end of workday.
When using do not eat or drink.
When using do not smoke.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: liquid
Colour	: orange
Odour	: No data available
Odour Threshold	: No data available
pH	: Average 8.4
Melting point/freezing point	: -34.6 °F / -37.0 °C
Boiling point/boiling range	: 330 °F / 166 °C (1013 hPa)
Flash point	: > 250.0 °F / > 121.1 °C Method: Closed Cup
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper explosion limit	: 15.3 %(V)
Lower explosion limit	: 3.2 %(V)
Vapour pressure	: 17.5 mmHg
Relative vapour density	: No data available
Relative density	: No data available
Density	: 1.1149 g/cm ³ (15.56 °C)
Solubility(ies)	
Water solubility	: No data available
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Thermal decomposition	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available

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Oxidizing properties : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.

Chemical stability : Stable under recommended storage conditions.

Possibility of hazardous reactions : Product will not undergo hazardous polymerization.

Conditions to avoid : excessive heat

Incompatible materials : Acids
Aldehydes
Alkali metals
Alkaline earth metals
Bases
strong alkalis
Strong oxidizing agents
Sulphur compounds

Hazardous decomposition products : Alcohols
Aldehydes
carbon dioxide and carbon monoxide
ethers
Hydrocarbons
Organic acids
potassium oxide
ketones

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation
Skin contact
Eye Contact
Ingestion

Acute toxicity

Harmful if swallowed.

Product:

Acute oral toxicity :
Remarks: Ingestion of medications contaminated with diethylene glycol has caused kidney failure and death in humans. Products containing diethylene glycol should be considered toxic by ingestion.

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Acute dermal toxicity : Remarks: Skin absorption of this material (or a component) may be increased through injured skin.

Components:

ETHYLENE GLYCOL:

Acute oral toxicity : LD 50 (Rat): 6,140 mg/kg
 LD50 (Human): Estimated 1.56 g/kg
 Assessment: The component/mixture is classified as acute oral toxicity, category 4.

Acute inhalation toxicity : LC 50 (Rat): 10.9 mg/l
 Exposure time: 1 h
 Test atmosphere: dust/mist
 Assessment: No adverse effect has been observed in acute inhalation toxicity tests.

Acute dermal toxicity : LD 50 (Rabbit): 9,530 mg/kg

DIETHYLENE GLYCOL:

Acute oral toxicity : LD50 (Human): Expected 1,120 mg/kg
 Target Organs: Kidney

Acute inhalation toxicity : LC50 (Rat): > 4.6 mg/l
 Exposure time: 4 h
 Test atmosphere: dust/mist
 Assessment: No adverse effect has been observed in acute inhalation toxicity tests.

Acute dermal toxicity : LD 50 (Rabbit): 13,300 mg/kg

POTASSIUM 2-ETHYLHEXANOATE:

Acute oral toxicity : LD50 (Rat): 3,640 mg/kg
 Remarks: Information given is based on data obtained from similar substances.

Acute inhalation toxicity : LC50 (Rat): > 0.11 mg/l
 Exposure time: 8 h
 Test atmosphere: dust/mist
 Assessment: Not classified as acutely toxic by inhalation under GHS.
 Remarks: No mortality observed at this dose.
 Information given is based on data obtained from similar substances.

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
 Assessment: Not classified as acutely toxic by dermal absorption under GHS.
 Remarks: Information given is based on data obtained from similar substances.

Skin corrosion/irritation

Not classified based on available information.

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Components:

ETHYLENE GLYCOL:

Result: Mildly irritating to skin

DIETHYLENE GLYCOL:

Species: Human

Result: Slightly irritating to skin

POTASSIUM 2-ETHYLHEXANOATE:

Species: Rabbit

Method: OECD Test Guideline 404

Result: Irritating to skin

GLP: yes

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin.

Components:

ETHYLENE GLYCOL:

Result: Possibly irritating to eyes

DIETHYLENE GLYCOL:

Species: Rabbit

Result: Slightly irritating to eyes

POTASSIUM 2-ETHYLHEXANOATE:

Result: Possibly irritating to eyes

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Components:

DIETHYLENE GLYCOL:

Test Type: Maximisation Test (GPMT)

Species: Guinea pig

Method: Directive 67/548/EEC, Annex V, B.6.

Result: Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Not classified based on available information.

Components:

DIETHYLENE GLYCOL:

Genotoxicity in vitro

: Test Type: Ames test

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

GLP: yes

: Test species: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 479

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Result: negative
GLP: yes

Genotoxicity in vivo : Test Type: In vivo micronucleus test
Test species: Mouse
Method: OECD Test Guideline 474
Result: negative
GLP: yes

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Suspected of damaging fertility or the unborn child.

Components:

POTASSIUM 2-ETHYLHEXANOATE:

Reproductive toxicity - : Some evidence of adverse effects on development, based on
Assessment animal experiments.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

May cause damage to organs (Kidney, Liver) through prolonged or repeated exposure if swallowed.

Components:

ETHYLENE GLYCOL:

Exposure routes: Ingestion

Target Organs: Kidney, Liver

Assessment: May cause damage to organs through prolonged or repeated exposure.

DIETHYLENE GLYCOL:

Exposure routes: Ingestion

Target Organs: Kidney

Assessment: May cause damage to organs through prolonged or repeated exposure.

Aspiration toxicity

Not classified based on available information.

Product:

No aspiration toxicity classification

Experience with human exposure

Components:

DIETHYLENE GLYCOL:

Liver

Further information

Product:

Remarks: No data available

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.

OSHA

No component of this product present at levels greater than or

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equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

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 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

ETHYLENE GLYCOL:

Toxicity to fish : LC 50 (Bluegill (*Lepomis macrochirus*)): 27,540 mg/l
 Exposure time: 96 h
 Method: Static
 Remarks: Mortality

LC 50 (Fathead minnow (*Pimephales promelas*)): 8,050 mg/l
 Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : LC 50 (Water flea (*Daphnia magna*)): > 10,000 mg/l
 Exposure time: 48 h
 Test Type: static test

DIETHYLENE GLYCOL:

Toxicity to fish : LC 50 (Fathead minnow (*Pimephales promelas*)): 75,210 mg/l
 Exposure time: 96 h
 Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates : LC 50 (Water flea (*Daphnia magna*)): > 10,000 mg/l
 Exposure time: 24 h
 Test Type: static test
 Method: DIN 38412

POTASSIUM 2-ETHYLHEXANOATE:

Toxicity to fish : LC50 (Fish): > 100 mg/l
 Exposure time: 96 h
 Remarks: Information given is based on data obtained from similar substances.

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): 106 mg/l
 Exposure time: 48 h
 Test Type: static test
 Remarks: Information given is based on data obtained from similar substances.

Toxicity to algae : EC50 (*Desmodesmus subspicatus* (green algae)): 49.3 mg/l
 End point: Growth inhibition

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Exposure time: 72 h
 Test Type: static test
 Remarks: Information given is based on data obtained from similar substances.

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 25 mg/l
 Exposure time: 21 d
 Test Type: static test
 Remarks: Information given is based on data obtained from similar substances.

Persistence and degradability

Components:

DIETHYLENE GLYCOL:

Biodegradability : Result: Readily biodegradable
 Biodegradation: 70 - 80 %
 Exposure time: 28 d
 Method: OECD Test Guideline 301B

POTASSIUM 2-ETHYLHEXANOATE:

Biodegradability : Result: Readily biodegradable
 Biodegradation: 99 %
 Exposure time: 28 d
 Remarks: Information given is based on data obtained from similar substances.

Bioaccumulative potential

Components:

ETHYLENE GLYCOL:

Bioaccumulation : Species: Crayfish (Procambarus)
 Bioconcentration factor (BCF): 0.27
 Exposure time: 61 d
 Concentration: 1000 mg/l
 Method: Flow through

Partition coefficient: n-octanol/water : log Pow: -1.36

DIETHYLENE GLYCOL:

Bioaccumulation : Species: Leuciscus idus (Golden orfe)
 Bioconcentration factor (BCF): 100

Partition coefficient: n-octanol/water : log Pow: -1.47

Mobility in soil

Components:

No data available

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Other adverse effects

No data available

Product:

Additional ecological information : No data available

Components:

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

General advice : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Dispose of in accordance with all applicable local, state and federal regulations.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International transport regulations

REGULATION

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.

MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

Not dangerous goods

INTERNATIONAL MARITIME DANGEROUS GOODS

Not dangerous goods

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TRANSPORT CANADA - INLAND WATERWAYS

Not dangerous goods

TRANSPORT CANADA - RAIL

Not dangerous goods

TRANSPORT CANADA - ROAD

Not dangerous goods

U.S. DOT - INLAND WATERWAYS

Not dangerous goods

U.S. DOT - RAIL

Not dangerous goods

U.S. DOT - ROAD

Not dangerous goods

***ORM = ORM-D, CBL = COMBUSTIBLE LIQUID**

Marine pollutant	no
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Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

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)
ETHYLENE GLYCOL	107-21-1	5000	5344.449789

SARA 311/312 Hazards : Acute Health Hazard
Chronic Health Hazard

SARA 313 Component(s)

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ETHYLENE GLYCOL 107-21-1 93.55 %

Pennsylvania Right To Know

ETHYLENE GLYCOL 107-21-1 90.00 - 100.00 %
 DIETHYLENE GLYCOL 111-46-6 1.00 - 5.00 %
 POTASSIUM 2-ETHYLHEXANOATE 3164-85-0 1.00 - 5.00 %

New Jersey Right To Know

ETHYLENE GLYCOL 107-21-1 90.00 - 100.00 %
 DIETHYLENE GLYCOL 111-46-6 1.00 - 5.00 %
 POTASSIUM 2-ETHYLHEXANOATE 3164-85-0 1.00 - 5.00 %
 WATER 7732-18-5 1.00 - 5.00 %

California Prop 65

Proposition 65 warnings are not required for this product based on the results of a risk assessment.

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

TSCA : On TSCA Inventory
 DSL : q (quantity restricted)
 AUSTR : Not in compliance with the inventory
 ENCS : q (quantity restricted)
 KECL : Not in compliance with the inventory
 PICCS : Not in compliance with the inventory
 IECSC : On the inventory, or in compliance with the inventory

Inventories

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

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SECTION 16. OTHER INFORMATION

Further information

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NFPA:	HMIS III:						
<p>Flammability</p> <p>Health: 1, Flammability: 1, Instability: 0, Special hazard.</p>	<table border="1"> <tr> <td>HEALTH</td> <td>2*</td> </tr> <tr> <td>FLAMMABILITY</td> <td>1</td> </tr> <tr> <td>PHYSICAL HAZARD</td> <td>0</td> </tr> </table> <p>0 = not significant, 1 = Slight, 2 = Moderate, 3 = High, 4 = Extreme, * = Chronic</p>	HEALTH	2*	FLAMMABILITY	1	PHYSICAL HAZARD	0
HEALTH	2*						
FLAMMABILITY	1						
PHYSICAL HAZARD	0						

NFPA Flammable and Combustible Liquids Classification

Combustible Liquid Class IIIB

Full text of H-Statements referred to under sections 2 and 3.

- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H361 Suspected of damaging fertility or the unborn child.
- H373 May cause damage to organs through prolonged or repeated exposure if swallowed.

Sources of key data used to compile the Safety Data Sheet
 Ashland internal data including own and sponsored test reports
 The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :

- ACGIH : American Conference of Industrial Hygienists
- BEI : Biological Exposure Index
- CAS : Chemical Abstracts Service (Division of the American Chemical Society).
- CMR : Carcinogenic, Mutagenic or Toxic for Reproduction

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Zerex™ DEX COOL FORMULA ANTIFREEZE COOLANT		Version: 1.0
ZXEL1		

FG : Food grade

GHS : Globally Harmonized System of Classification and Labeling of Chemicals.

H-statement : Hazard Statement

IATA : International Air Transport Association.

IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO : International Civil Aviation Organization

ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization"

IMDG : International Maritime Code for Dangerous Goods

ISO : International Organization for Standardization

logPow : octanol-water partition coefficient

LCxx : Lethal Concentration, for xx percent of test population

LDxx : Lethal Dose, for xx percent of test population.

ICxx : Inhibitory Concentration for xx of a substance

Ecxx : Effective Concentration of xx

N.O.S.: Not Otherwise Specified

OECD : Organization for Economic Co-operation and Development

OEL : Occupational Exposure Limit

P-Statement : Precautionary Statement

PBT : Persistent , Bioaccumulative and Toxic

PPE : Personal Protective Equipment

STEL : Short-term exposure limit

STOT : Specific Target Organ Toxicity

TLV : Threshold Limit Value

TWA : Time-weighted average

vPvB : Very Persistent and Very Bioaccumulative

WEL : Workplace Exposure Level

CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act

DOT : Department of Transportation

FIFRA : Federal Insecticide, Fungicide, and Rodenticide Act

HMIRC : Hazardous Materials Information Review Commission

HMIS : Hazardous Materials Identification System

NFPA : National Fire Protection Association

NIOSH : National Institute for Occupational Safety and Health

OSHA : Occupational Safety and Health Administration

PMRA : Health Canada Pest Management Regulatory Agency

RTK : Right to Know

WHMIS : Workplace Hazardous Materials Information System