



SAFETY DATA SHEET
Zerex™ ASIAN VEHICLE BLUE CONC
Antifreeze Coolant

Version: 1.7

Revision Date: 09/05/2024

Print Date:
04/12/2025

SECTION 1. IDENTIFICATION

Product name : Zerex™ ASIAN VEHICLE BLUE CONC
Antifreeze Coolant

Product code : 910236

Manufacturer or supplier's details

Company name of supplier : Valvoline Global Operations

Address : 100 Valvoline Way
Lexington, KY 40509
United States of America (USA)

Telephone : 1-800-TEAMVAL (1-800-832-6825)

E-mail address : SDS@valvolineglobal.com

Emergency telephone number : +1-800-VALVOLINE (+1-800-825-8654)

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity (Oral) : Category 4

Specific target organ toxicity - repeated exposure (Oral) : Category 2 (Kidney)

GHS label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : H302 Harmful if swallowed.
H373 May cause damage to organs (Kidney) through prolonged or repeated exposure if swallowed.

Precautionary statements : **Prevention:**
P260 Do not breathe mist or vapours.



SAFETY DATA SHEET
Zerex™ ASIAN VEHICLE BLUE CONC
Antifreeze Coolant

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Revision Date: 09/05/2024

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04/12/2025

P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.

Response:

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
P314 Get medical advice/ attention if you feel unwell.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
ethanediol	107-21-1	>= 90 - <= 100
sodium benzoate	532-32-1	>= 1.5 - < 5

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

Most important symptoms and effects, both acute and delayed : Harmful if swallowed.
May cause damage to organs through prolonged or repeated exposure if swallowed.

SECTION 5. FIREFIGHTING MEASURES

Hazardous combustion products : No hazardous combustion products are known

SECTION 6. ACCIDENTAL RELEASE MEASURES

Environmental precautions : Prevent spreading over a wide area (e.g. by containment or oil barriers).
Do not let product enter drains.
Do not flush into surface water or sanitary sewer system.



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SAFETY DATA SHEET
ZerexTM ASIAN VEHICLE BLUE CONC
Antifreeze Coolant

Version: 1.7

Revision Date: 09/05/2024

Print Date:
04/12/2025

SECTION 7. HANDLING AND STORAGE

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
ethanediol	107-21-1	TWA (Vapour)	25 ppm	ACGIH
		STEL (Vapour)	50 ppm	ACGIH
		STEL (Inhalable fraction, Aerosol only)	10 mg/m ³	ACGIH
		C	50 ppm 125 mg/m ³	OSHA P0
sodium benzoate	532-32-1	TWA (Inhalable particulate matter)	2.5 mg/m ³	ACGIH

Personal protective equipment

Respiratory protection : Respiratory protection is not required under normal conditions of use.
No personal respiratory protective equipment normally required.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid
Colour : blue
Odour : No data available
Odour Threshold : No data available
pH : No data available
Melting point/ range : No data available
Melting point/freezing point : No data available



Valvoline™
Global

SAFETY DATA SHEET
Zerex™ ASIAN VEHICLE BLUE CONC
Antifreeze Coolant

Version: 1.7

Revision Date: 09/05/2024

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04/12/2025

Boiling point/boiling range	:	No data available No data available
Flash point	:	> 250 °F / > 121 °C
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Self-ignition	:	No data available
Upper explosion limit / Upper flammability limit	:	15.3 %(V) GLP: Calculated Explosive Limit
Lower explosion limit / Lower flammability limit	:	3.2 %(V) GLP: Calculated Explosive Limit
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	No data available
Solubility(ies)		
Water solubility	:	No data available
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Oxidizing properties	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid	:	excessive heat
Incompatible materials	:	Acids Aldehydes



Valvoline™
Global

SAFETY DATA SHEET
Zerex™ ASIAN VEHICLE BLUE CONC
Antifreeze Coolant

Version: 1.7

Revision Date: 09/05/2024

Print Date:
04/12/2025

Hazardous decomposition products : Alkali metals
Alkaline earth metals
Bases
iron salts
strong alkalis
Strong oxidizing agents
Sulphur compounds
: No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Harmful if swallowed.

Product:

Acute oral toxicity : Acute toxicity estimate: 551 mg/kg
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method

Components:

ethanediol:

Acute oral toxicity : LD0 (Human): estimated 1.56 g/kg

Assessment: The component/mixture is moderately toxic after single ingestion.

Acute inhalation toxicity : LC50 (Rat): 10.9 mg/l
Exposure time: 1 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): 9,530 mg/kg

Acute toxicity (other routes of administration) : LD50 (Rat): 5,010 mg/kg
Application Route: Intraperitoneal

LD50 (Rat): 3,260 mg/kg
Application Route: Intravenous

Skin corrosion/irritation

Not classified due to lack of data.



Valvoline™
Global

SAFETY DATA SHEET
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Antifreeze Coolant

Version: 1.7

Revision Date: 09/05/2024

Print Date:
04/12/2025

Components:

ethanediol:

Species : Rabbit
Result : No skin irritation

Serious eye damage/eye irritation

Not classified due to lack of data.

Components:

ethanediol:

Result : Slight, transient irritation

sodium benzoate:

Result : Irritating to eyes.
Method : OECD Test Guideline 405

Respiratory or skin sensitisation

Skin sensitisation

Not classified due to lack of data.

Respiratory sensitisation

Not classified due to lack of data.

Components:

ethanediol:

Test Type : Maximisation Test
Species : Guinea pig
Assessment : Does not cause skin sensitisation.

Germ cell mutagenicity

Not classified due to lack of data.

Components:

ethanediol:

Genotoxicity in vitro : Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Result: negative

Carcinogenicity

Not classified due to lack of data.

IARC Group 2A: Probably carcinogenic to humans



Valvoline™
Global

SAFETY DATA SHEET
Zerex™ ASIAN VEHICLE BLUE CONC
Antifreeze Coolant

Version: 1.7

Revision Date: 09/05/2024

Print Date:
04/12/2025

sodium nitrate 7631-99-4
(nitrate (ingested) under conditions that result in endogenous nitrosation)

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.

Reproductive toxicity

Not classified due to lack of data.

STOT - single exposure

Not classified due to lack of data.

STOT - repeated exposure

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

Components:

ethanediol:

Exposure routes : Ingestion
Target Organs : Kidney
Assessment : May cause damage to organs through prolonged or repeated exposure.

Aspiration toxicity

Not classified due to lack of data.

Experience with human exposure

Components:

ethanediol:

Ingestion : Target Organs: Kidney

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Ecotoxicology Assessment

Acute aquatic toxicity : Not classified based on available information.

Chronic aquatic toxicity : Not classified based on available information.



SAFETY DATA SHEET
Zerex™ ASIAN VEHICLE BLUE CONC
Antifreeze Coolant

Version: 1.7

Revision Date: 09/05/2024

Print Date:
04/12/2025

Components:

ethanediol:

- Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 27,540 mg/l
Exposure time: 96 h
Test Type: static test
- LC50 (Pimephales promelas (fathead minnow)): 8,050 mg/l
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): > 10,000 mg/l
Exposure time: 48 h
Test Type: static test
- Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 6,500 - 13,000 mg/l
End point: Growth inhibition
Exposure time: 7 Days
- Toxicity to fish (Chronic toxicity) : NOEC (Pimephales promelas (fathead minnow)): 32,000 mg/l
Exposure time: 7 d
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 24,000 mg/l
Exposure time: 7 d

Ecotoxicology Assessment

- Acute aquatic toxicity : Not classified based on available information.
- Chronic aquatic toxicity : Not classified based on available information.

sodium benzoate:

Ecotoxicology Assessment

- Acute aquatic toxicity : Not classified based on available information.
- Chronic aquatic toxicity : Not classified based on available information.

Persistence and degradability

Components:

ethanediol:

- Biodegradability : Result: Readily biodegradable.
Biodegradation: 90 - 100 %
Exposure time: 10 d
Method: OECD Test Guideline 301



SAFETY DATA SHEET
Zerex™ ASIAN VEHICLE BLUE CONC
Antifreeze Coolant

Version: 1.7

Revision Date: 09/05/2024

Print Date:
04/12/2025

Bioaccumulative potential

Components:

ethanediol:

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

Mobility in soil

No data available

Other adverse effects

Product:

Ozone-Depletion Potential : 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).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

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

Not applicable for product as supplied.



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Global

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Zerex[™] ASIAN VEHICLE BLUE CONC
Antifreeze Coolant

Version: 1.7

Revision Date: 09/05/2024

Print Date:
04/12/2025

National Regulations

49 CFR

Not regulated as a dangerous good

Special precautions for user

Not applicable

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

CERCLA Reportable Quantity

Listed substances in the product are at low enough levels to not be expected to exceed the RQ

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Acute toxicity (any route of exposure)
Specific target organ toxicity (single or repeated exposure)

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

ethanediol	107-21-1	>= 90 - <= 100 %
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Clean Air Act

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).

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 112 (40 CFR 61):

ethanediol	107-21-1	>= 90 - <= 100 %
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This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489):

ethanediol	107-21-1	>= 90 - <= 100 %
sodium benzoate	532-32-1	>= 1 - < 5 %

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.



Valvoline™
Global

SAFETY DATA SHEET
Zerex™ ASIAN VEHICLE BLUE CONC
Antifreeze Coolant

Version: 1.7

Revision Date: 09/05/2024

Print Date:
04/12/2025

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

This product does not contain any priority pollutants related to the U.S. Clean Water Act

US State Regulations

Massachusetts Right To Know

ethanediol	107-21-1
water	7732-18-5

Pennsylvania Right To Know

ethanediol	107-21-1
sodium benzoate	532-32-1

Maine Chemicals of High Concern

water	7732-18-5
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Vermont Chemicals of High Concern

ethanediol	107-21-1
water	7732-18-5
molybdic acid, disodium salt, dihydrate	10102-40-6

Washington Chemicals of High Concern

ethanediol	107-21-1
water	7732-18-5

California Prop. 65

WARNING: This product can expose you to chemicals including ethanediol, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California List of Hazardous Substances

ethanediol	107-21-1
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California Permissible Exposure Limits for Chemical Contaminants

ethanediol	107-21-1
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The components of this product are reported in the following inventories:

TCSI	: Not in compliance with the inventory
TSCA	: All substances listed as active on the TSCA inventory
AIIC	: On the inventory, or in compliance with the inventory
DSL	: All components of this product are on the Canadian DSL
ENCS	: On the inventory, or in compliance with the inventory
ISHL	: Not in compliance with the inventory
KECI	: Not in compliance with the inventory



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Global

SAFETY DATA SHEET
Zerex™ ASIAN VEHICLE BLUE CONC
Antifreeze Coolant

Version: 1.7

Revision Date: 09/05/2024

Print Date:
04/12/2025

- PICCS : On the inventory, or in compliance with the inventory
- IECSC : On the inventory, or in compliance with the inventory
- NZIoC : Not in compliance with the inventory
- TECI : Not in compliance with the inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

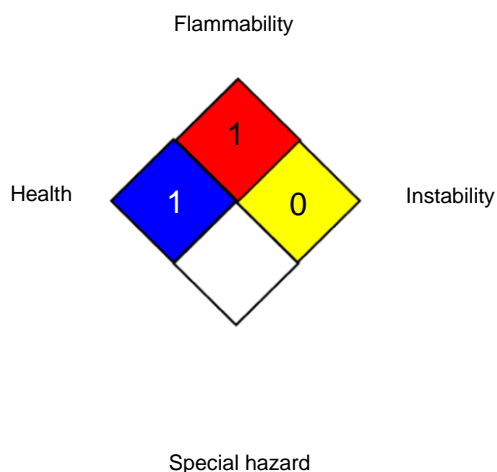
Inventories

AIIC (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TECI (Thailand), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:

HEALTH	*	2
FLAMMABILITY	1	
PHYSICAL HAZARD	0	

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations



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Global

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Revision Date: 09/05/2024

Print Date:
04/12/2025

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
OSHA P0 : USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
ACGIH / TWA : 8-hour, time-weighted average
ACGIH / STEL : Short-term exposure limit
OSHA P0 / C : Ceiling limit

AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 09/05/2024

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the



Valvoline™

Global

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Zerex™ ASIAN VEHICLE BLUE CONC
Antifreeze Coolant

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04/12/2025

specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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Internal information : 000000206947