



Safety Data Sheet

Issue Date: 20-Apr-2012

Review Date: 11-Oct-2019

Version 1

1. IDENTIFICATION

Product Identifier

Product Name Autoguard 50/50 Pre-Diluted Antifreeze & Coolant

Other means of identification

SDS # AG-005

Recommended use of the chemical and restrictions on use

Recommended Use Automotive Engine Antifreeze & Coolant

Details of the supplier of the safety data sheet

Emergency Telephone Number

Company Phone Number 1-800-428-9284

Emergency Telephone (24 hr) CHEMTREC 1-800-424-9300

2. HAZARDS IDENTIFICATION

GHS-US Classification

Acute Tox. 4 (Oral) H302

STOT RE 2 H373

Full text of H-phrases: see Section 16

GHS-US Labeling

Hazard pictograms (GHS-US)



Signal word (GHS-US):

Hazard statements (GHS-US):

Warning

H302 – Harmful if swallowed

H373 – May cause damage to organs (kidneys) through prolonged or repeated exposure (oral)

Precautionary statements (GHS-US):

P201 – Obtain special instructions before use

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

P260 – Do not breathe mist, spray, vapors

P264 – Wash affected areas thoroughly after handling

P270 – Do not eat, drink or smoke when using this product

P280 – Wear personal protective equipment as required

P301+P310 – If swallowed: immediately call doctor/physician or poison center

P301+P330+P331 – If swallowed: rinse mouth. DO NOT induce vomiting

P304+P340 – If inhaled: remove person to fresh air and keep comfortable for breathing

P308+P313 – If exposed or concerned: get medical advice/attention

P405 – Store locked up
 P501 – Dispose of contents/container, in a safe manner, to appropriate waste disposal facility, in accordance with local/regional/national/international regulations

Other hazards: No additional information available

Unknown acute toxicity (GHS-US): No data available

Full text of hazard classes and H-statements: See section 16

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance: Not applicable

Mixture

| Name | Product Identifier | % by wt | GHS-US Classification |
|---------------------|---------------------|-------------|--|
| Ethylene glycol | (CAS No.) 107-21-1 | 45 - 50 | Acute Tox. 4 (Oral), H302 |
| Diethylene glycol | (CAS No.) 111-46-6 | 1 - 5 | Acute Tox. 4 (Oral), H302 STOT RE 2, H373 |
| Water | (CAS No.) 7732-18-5 | 45 - 50 | Not classified |
| Denatonium benzoate | (CAS No.) 3734-33-6 | 30 – 50 ppm | Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335 |

Full text of hazard classes and H-statements: See section 16

4. FIRST-AID MEASURES

Description of first aid measures

- First-aid measures general:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible)
- First-aid measures after inhalation:** If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek immediate medical advice. Allow the victim to rest. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
- First-aid measures after skin contact:** Remove contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: rinse immediately with plenty of water (for at least 15 minutes). Get medical advice/attention. Specific treatment (see supplemental first aid instructions on this label).
- First-aid measures after eye contact:** Remove contact lenses, if present and easy to do. Continue rinsing. Rinse immediately with plenty of water for 15 minutes, lifting lower and upper lids. If eye irritation persists: rinse immediately with plenty of water. Get medical attention.
- First-aid measures after ingestion:** Obtain emergency medical attention. Rinse mouth. If the person is fully conscious, make him/her drink two glasses of water. Never give an unconscious person anything to drink. DO NOT induce vomiting. Call a POISON CENTER/doctor/physician if you feel unwell. If medical advice is delayed, and if the person has swallowed a moderate volume of material (a few ounces), then give three to four ounces of hard liquor, such as whiskey. For children, give proportionally less liquor, according to weight.

Most important symptoms and effects

Symptoms/injuries: Causes damage to organs (kidneys)(oral).

Symptoms/injuries after skin contact: Causes skin irritation.

Symptoms/injuries after eye contact:
Causes serious eye damage.

Symptoms/injuries after ingestion: Swallowing a small quantity of this material will result in serious health hazard. The lethal dose in humans is estimated to be 100 mL (3 oz.).

Indication of any immediate medical attention and special treatment needed

A more effective intravenous antidote for physician uses is 4-methylpyrazaole, a potent inhibitor of alcohol dehydrogenases, which effectively blocks the formation of toxic metabolites of ethylene glycol. It has been used to decrease the metabolic consequences of ethylene glycol poisoning before metabolic acidosis coma, seizures, and renal failure have occurred.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Water fog. Fine water spray. Foam. Carbon dioxide. Dry chemical powder. Sand.

Unsuitable Extinguishing Media: Do not use a heavy water stream. May spread fire.

Special hazards arising from the substance or mixture

Fire Hazard: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide.

Reactivity: No dangerous reactions known under normal conditions of use.

Advice for firefighters

Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Special protective equipment for fire fighters: Wear positive pressure self-contained breathing apparatus (SCBA). Protective fire fighting clothing (includes fire-fighting helmet, coat, pants, boots and gloves).

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Emergency procedures: Evacuate unnecessary personnel.

For emergency responders

Protective equipment: Equip cleanup crew with proper protection. Refer to Section 8.2.

Emergency procedures: Ventilate area.

Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

Methods and material for containment and cleaning up

Methods for cleaning up: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. Store away from other materials.

Reference to other sections

See Section 8. Exposure controls and personal protection.

7. HANDLING AND STORAGE

Precautions for safe handling

Precautions for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

Hygiene measures: Do not eat, drink or smoke when using this product. Wash affected areas thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Conditions: Keep only in the original container in a cool, well ventilated place away from: Heat sources. Keep container closed when not in use. Product may become solid at temperatures below -37°C (-34°F). Do not store near food, foodstuffs, drugs or potable water supplies. Do not cut, drill, weld, use a blowtorch on, etc. containers even when empty.

Incompatible products: Keep away from strong acids, strong bases and oxidizing agents.

Incompatible materials: Sources of ignition.

Specific end use(s)

No additional information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

| Ethylene glycol (107-21-1) | | |
|--|---------------------------------|---|
| USA ACGIH | Local name | Ethylene glycol |
| USA ACGIH | ACGIH TWA (mg/m ³) | 10 mg/m ³ |
| USA ACGIH | ACGIH TWA (ppm) | 25 ppm (Vapor fraction) |
| USA ACGIH | ACGIH STEL (mg/m ³) | 10 mg/m ³ (Inhalable fraction, Aerosol only) |
| USA ACGIH | ACGIH STEL (ppm) | 50 ppm (Vapor fraction) |
| USA ACGIH | Remark (ACGIH) | Upper respiratory tract & eye irritant |
| Denatonium benzoate (3734-33-6) | | |
| Not applicable | | |
| Diethylene glycol (111-46-6) | | |
| Not applicable | | |
| Water (7732-18-5) | | |
| Not applicable | | |

Exposure controls

Personal protective equipment: Avoid all unnecessary exposure. Gloves. Safety glasses.

Individual protection measures, such as personal protective equipment

| | |
|--------------------------------|--|
| Hand protection: | Wear protective gloves. |
| Eye protection: | Chemical goggles or safety glasses. |
| Respiratory protection: | If exposed to levels above exposure limits, wear appropriate respiratory protection. |
| Other information: | Do not eat, drink or smoke during use. |

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

| | |
|--|--|
| Physical State: | Liquid |
| Color: | Green |
| Odor: | Mild |
| Odor threshold: | No data available |
| pH 50% water solution: | 10.5 – 11 |
| Relative evaporation rate (butylacetate=1): | Nil |
| Freezing point: | -37°C (-34°F) |
| Boiling point: | 107°C (224°F) |
| Flash point: | 116°C (241°F) [100% Ethylene Glycol] <i>ASTM D56</i> |
| Auto-ignition temperature: | 400°C (752°F) [100% Ethylene Glycol] <i>Literature</i> |
| Decomposition temperature: | No data available |
| Flammability (solid, gas): | No data available |
| Vapor pressure: | <0.1 mm Hg @ 20°C |
| Relative vapor density at 20°C: | No data available |
| Specific Gravity: | 1.06 |
| Density: | 1.06 kg/l (8.84 lbs/gal) |
| Solubility: | Water, Complete |
| Log Pow | No data available |
| Log Kow | No data available |
| Viscosity, kinematic: | No data available |
| Viscosity, dynamic: | No data available |
| Explosive properties: | Not applicable |
| Oxidizing properties: | Not applicable |
| Explosive limits: | Not applicable |

Other information

| | |
|---------------------|-------|
| VOC content: | 0.00% |
|---------------------|-------|

10. STABILITY AND REACTIVITY

Reactivity

No dangerous reactions known under normal conditions of use.

Chemical Stability

Stable.

Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

Conditions to Avoid

Keep away from any flames or sparking source. Extremely high or low temperatures.

Incompatible Materials

Keep away from strong acids, strong bases and oxidizing agents.

Hazardous Decomposition Products

Carbon dioxide. Carbon monoxide. Fume. Alcohols. Aldehydes. Ethers.

11. TOXICOLOGICAL INFORMATION**Information on toxicological effects****Acute toxicity:** Not classified

| | |
|--|---|
| Ethylene glycol (107-21-1) | |
| LD50 oral rat | 7712 mg/kg (Rat, Literature study) |
| LC50 inhalation rat (mg/l) | >2.5 mg/l (6 h, Rat, Male/female, Experiment value) |
| ATE US (oral) | 500 mg/kg bodyweight |
| Diethylene glycol (111-46-6) | |
| LD50 oral rat | 19600 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male, Experimental value) |
| LD50 dermal rabbit | 11,890 mg/kg (Rabbit) |
| LC50 inhalation rat (mg/l) | >4.6 mg/l/4h (Other, 4 h, Rat, Weight of evidence) |
| ATE US (oral) | 500 mg/kg bodyweight |
| ATE US (dermal) | 11890 mg/kg bodyweight |
| Denatonium benzoate (3734-33-6) | |
| LD50 oral rat | 584 mg/kg (Rat, Literature study) |
| LD50 dermal rabbit | > 2,000 mg/kg (Rabbit, Literature study) |
| ATE US (oral) | 584 mg/kg bodyweight |

Skin corrosion/irritation: Not classified
pH: 10.5 – 11**Serious eye damage/irritation:** Not classified
pH: 10.5 – 11**Respiratory or skin sensitization:** Not classified**Germ cell mutagenicity:** Not classified**Carcinogenicity:** Not classified**Reproductive toxicity:** Not classified**Specific target organ toxicity (single version):** Not classified**Specific target organ toxicity (repeated exposure):** May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).**Aspiration hazard:** Not classified**Potential adverse human health effects and symptoms:** Based on available data, the classification criteria are not met. Harmful if swallowed.

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|--|---|
| Symptoms/injuries after skin contact: | Causes skin irritation. |
| Symptoms/injuries after eye contact: | Causes serious eye damage. |
| Symptoms/injuries after ingestion: | Swallowing a small quantity of this material will result in serious health hazard. The lethal dose in humans is estimated to be 100 mL (3 oz.). |

12. ECOLOGICAL INFORMATION

Toxicity:

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|--|--|
| ethylene glycol (107-21-1) | |
| LC50 fish 1 | 40,761.00 mg/l (96 h; Salmo gairdneri, Static system) |
| EC50 Daphnia 1 | >10,000 mg/l (24 h; Daphnia magna) |
| diethylene glycol (111-46-6) | |
| LC50 fish 1 | >5,000 ppm (24 h ; Carassius auratus) |
| EC50 Daphnia 1 | >10,000 mg/l (24 h ; Daphnia magna) |
| LC50 fish 2 | 75,200.00 mg/l (Other, 96 h, Pimephales promelas, Flow-through system, Experimental value) |
| EC50 Daphnia 2 | >10,000 mg/l (DIN 38412-11 24 h Daphnia magna, Static system, Fresh water, Experimental value) |
| denatonium benzoate (3734-33-6) | |
| LC50 fish 1 | >1,000 mg/l 96 h; Salmo gairdneri, Literature study) |
| EC50 Daphnia 1 | 13 mg/l (48 h; Daphnia magna, Literature study) |

Persistence and degradability:

| | |
|--|--|
| ethylene glycol (107-21-1) | |
| Persistence and degradability | Readily biodegradable in water. Biodegradable in the soil. |
| Biochemical oxygen demand (BOD) | 0.47 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 1.24 g O ₂ /g substance |
| ThOD | 1.29 g O ₂ /g substance |
| BOD (% of ThOD) | 0.36 |
| diethylene glycol (111-46-6) | |
| Persistence and degradability | Biodegradable in water. Biodegradable in the soil. |
| Biochemical oxygen demand (BOD) | 0.02 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 1.51 g O ₂ /g substance |
| ThOD | 1.51 g O ₂ /g substance |
| BOD (% of ThOD) | 0.02 |
| denatonium benzoate (3734-33-6) | |
| Persistence and degradability | Biodegradability in water: no data available. No (test) data on mobility of the substance available. |

Bioaccumulative potential:

| | |
|-------------------------------------|---|
| ethlene glycol (107-21-1) | |
| BCF fish 1 | 10 (72 h; Leuciscus idus) |
| BCF other aquatic organisms 1 | 0.21 – 0.6 (Procambarus sp.; Chronic) |
| BCF other aquatic organisms 2 | 190 (24 h; Algae) |
| Log Pow | -1.34 (Experimental value) |
| Bioaccumulative potential | Not bioaccumulation |
| diethylene glycol (111-46-6) | |
| BCF fish 1 | 100.00 (Other, 3 day(s), Leuciscus melanotus, Static system, Fresh water, Experimental value) |
| Log Pow | -1.98 (Calculated, Other) |
| Bioaccumulative potential | Bioaccumulation |

| | |
|--------------------------------------|--|
| denatonium glycol (3734-33-6) | |
| Log Pow | 1.78 (Estimated value) |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |

Mobility in soil:

| | |
|--|--|
| ethylene glycol (107-21-1) | |
| Surface tension | 48.00 mN/m (20°C / 68°F) |
| Ecology – soil | No (test) data on mobility of the substance available. |
| diethylene glycol (111-46-6) | |
| Surface tension | 0.05 N/m |
| Ecology – soil | Highly mobile in soil |
| Log Koc | 0.00 (log Koc, SRC PCKOCWIN v 1.66, Calculated value) |
| denatonium benzoate (3734-33-6) | |
| Ecology – soil | No (test) data on mobility of the substance available. |

Other adverse effects:

Effect on ozone layer: No known effect on the ozone layer.
 Other information: Avoid release to the environment.

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Waste disposal recommendations: Dispose of contents/container in a safe manner, to appropriate waste disposal facility, in accordance with local/regional/national/international regulations.
 Ecology – waste materials: Avoid release to the environment.

14. TRANSPORT INFORMATION

In accordance with DOT
Transport document description: UN3082 Environmentally hazardous substances, liquid, n.o.s., 9, III
UN-No. (DOT): 3082
DOT NA no.: UN3082
Proper Shipping Name (DOT): Environmentally hazardous substances, liquid, n.o.s.
 Ethylene Glycol
Department of Transportation (DOT) Classes: 9 – Class 9 – Miscellaneous hazardous material 49 CFR 173.140
 Minor Danger
Packaging group (DOT) 111 – Minor Danger
Hazard labels (DOT): 9 – Class 9 – Miscellaneous dangerous materials)



DOT Symbols: G – Identifies PSN requiring a technical name
Packing group (DOT): III – Minor Danger

| | |
|--|--|
| DOT Packaging Exceptions (49 CFR 173.xxx): | 155 |
| | 203 |
| DOT Packaging Exceptions (49 CFR 173.xxx): | |
| DOT Packaging Bulk (49 CFR 173.xxx): | 241 |
| DOT Quantity Limitations Passenger aircraft/trail (49 CFR 173.27) : | No limit |
| DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75): | No limit |
| DOT Vessel Stowage Location: | No supplementary information available. |
| Other Information: | Non Bulk: Not regulated by the US D.O.T (in quantities under 5,000 lbs. in any one inner package). |
| Transportation of Dangerous Goods No additional information available. | |
| Transport by sea UN-No. (IMDG): Not regulated by IMDG (in quantities under 5,000 lbs. in any one inner package). | |
| Air transport UN-No. (IATA): Not regulated by IATA (in quantities under 5,000 lbs. in any one inner package). | |

15. REGULATORY INFORMATION

US Federal Regulations

| | |
|---|---|
| Autoguard 50-50 Pre-diluted Antifreeze & Coolant | |
| EPA TSCA Regulatory Flag | Toxic Substance Control Act (TSCA): The international ingredients of this product are listed. |
| Ethylene glycol (107-21-1) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on United States SARA Section 313 | |
| EPA TSCA Regulatory flag | T – T –indicates a substance that is the subject of a Section 4 test rule under TGSCA |
| CERCLA RQ | 5000 lb(s) |
| SARA Section 313 – Emission Reporting | Refer to Section 2 for the OSHA hazard classification Ethylene glycol is subject to Tier I and/or Tier II annual inventory reporting |
| Diethylene glycol (111-46-6) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | |
| Denatonium benzoate (3734-33-6) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | |
| Water (7732-18-5) | |
| Listed on the United States TSCA (Toxic Substance Control Act) inventory | |

International regulations:

CANADA

| | |
|--|---|
| Autoguard 50/50 Prediluted Antifreeze & Coolant | |
| WHMIS Classification | This SDS has been prepared according to the criteria of the Hazardous Products Regulations (HPR) (WHMIS 2015) and the SDS contains all of the information required by the HPR. Applicable GHS information is listed in section 2.2 of this SDS. |

EU-Regulations

No additional information available

National Regulations

| |
|--|
| Autoguard 50/50 Prediluted Antifreeze & Coolant |
| DSL (Canada): The intentional ingredients of this product are listed. ECL (South Korea): The intentional ingredients of this product are listed. EINECS (Europe): The intentional ingredients of this product are listed. ENCS (Japan): The intentional ingredients of this product are listed. |

US State regulations

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

| | | | | |
|---|---|---|---|----------------------------------|
| ethylene glycol (107-21-1) | | | | |
| U.S. – California – Proposition 65 – Carcinogens List | U.S. – California – Proposition 65 - Developmental Toxicity | U.S. – California – Proposition 65 - Reproductive Toxicity - Female | U.S. – California – Proposition 65 - Reproductive Toxicity - Male | No significant risk level (NSRL) |
| No | Yes | No | No | |

| |
|---|
| Ethylene glycol (107-21-1) |
| U.S. – Massachusetts – Right To Know List U.S. – New Jersey – Right To Know Hazardous Substance List U.S. – Pennsylvania – RTK (Right To Know) List |
| Diethylene glycol (111-46-6) |
| U.S. – Pennsylvania – RTK (Right To Know) Environmental Hazard List |

16. OTHER INFORMATION

Full test of H-phrases:

| | |
|-------------|---|
| H302 | Harmful if swallowed |
| H315 | Causes skin irritation |
| H319 | Causes serious eye irritation |
| H335 | May cause respiratory irritation |
| H373 | May cause damage to organs through prolonged or repeated exposure |

NFPA health hazard:

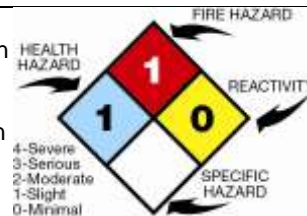
1 – Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard:

1 – Materials that must be preheated before ignition can occur/

NFPA reactivity

0 – Material that in themselves are normally stable, even under fire conditions



HMIS III Rating:**Health** 2 Moderate Hazard – Temporary or minor injury may occur**Flammability** 1 Slight Hazard**Physical** 0 Minimal Hazard**Personal Protection** B**Issue Date:** 20-Apr-2012**Review Date:** 09-Oct-2019**Disclaimer**

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 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.

End of Safety Data Sheet