

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Reliant HD™ Extended Life (Red) 50/50AFC, Reliant HD™ Extended Life Antifreeze/Coolant - Concentrate

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

Use of the substance/mixture : Antifreeze.
Coolant.
Restrictions on use : No additional information available

1.3. Details of the supplier of the safety data sheet

D-A Lubricant Company, Inc.
801 Edwards Dr
Lebanon, IN 46052
T 317-923-5321, Toll Free 1-800-873-2582
www.dalube.com

1.4. Emergency telephone number

Emergency number : 1-800-899-9004 Toll-Free USA/CAN 24 hours

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Acute toxicity (oral), Category 4 H302
Reproductive toxicity, Category 2 H361
Specific target organ toxicity — Repeated exposure, Category 2 H373

Full text of H statements : see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) : Warning
Hazard statements (GHS-US) : H302 - Harmful if swallowed.
H361 - Suspected of damaging fertility or the unborn child.
H373 - May cause damage to organs through prolonged or repeated exposure.
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, vapours.
P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product
P280 - Wear eye protection, protective gloves.
P301+P312 - If swallowed: Call a doctor if you feel unwell
P308+P313 - If exposed or concerned: Get medical advice/attention.
P314 - Get medical advice/attention if you feel unwell.
P330 - Rinse mouth.
P405 - Store locked up.
P501 - Dispose of contents/container to Collection point

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

0% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)
0% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)

Reliant HD™ Extended Life (Red) 50/50 AFC, Reliant HD™ Extended Life Antifreeze/Coolant - Concentrate

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

0% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % | GHS-US classification |
|-------------------------|----------------------|---------|---|
| Ethylene glycol | (CAS-No.) 107-21-1 | 45 - 95 | Acute Tox. 4 (Oral), H302 STOT RE 2, H373 |
| sodium 2-ethylhexanoate | (CAS-No.) 19766-89-3 | 1 - 5 | Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Repr. 2, H361 |

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

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

SECTION 4: First aid measures

4.1. 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 inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- First-aid measures after skin contact : Wash with plenty of water/... Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : 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.
- First-aid measures after ingestion : Rinse mouth. Call a POISON CENTER/doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/effects : Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure.
- Symptoms/effects after inhalation : In high concentrations : Inhalation may cause: irritation, coughing, shortness of breath.
- Symptoms/effects after skin contact : May cause slight irritation.
- Symptoms/effects after eye contact : May cause slight irritation.
- Symptoms/effects after ingestion : Swallowing a small quantity of this material will result in serious health hazard. Harmful if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed

All treatments should be based on observed signs and symptoms of distress in the patient.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Carbon dioxide. Dry powder. Foam. Sand. Water spray.
- Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : No specific fire or explosion hazard.
- Reactivity : No dangerous reactions known.

5.3. Advice for firefighters

- Firefighting instructions : Exercise caution when fighting any chemical fire. Do not allow run-off from fire fighting to enter drains or water courses.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Wear fire/ flame resistant/retardant clothing. Wear a self contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Avoid all eye and skin contact and do not breathe vapour and mist.

6.1.1. For non-emergency personnel

- Protective equipment : Chemical goggles or safety glasses. protective gloves. In case of inadequate ventilation wear respiratory protection.

Reliant HD™ Extended Life (Red) 50/50 AFC, Reliant HD™ Extended Life Antifreeze/Coolant - Concentrate

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Chemical goggles or safety glasses. Neoprene or nitrile rubber gloves. Where excessive vapour, mist, or dust may result, use approved respiratory protection equipment.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Absorb and/or contain spill with inert material, then place in suitable container.

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Take up in non-combustible absorbent material and shove into container for disposal.

6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing mist, spray, vapours.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container closed when not in use. Keep only in the original container in a cool well ventilated place.

Incompatible products : Strong oxidizing agents. Strong acids. Strong bases.

Incompatible materials : Heat sources. Direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Ethylene glycol (107-21-1) | | |
|--------------------------------------|------------------------------------|---------------------------|
| ACGIH | ACGIH Ceiling (mg/m ³) | 100 mg/m ³ |
| ACGIH | ACGIH Ceiling (ppm) | 39.4 ppm |
| ACGIH | Remark (ACGIH) | Kidney dam; URT & eye irr |
| NIOSH | NIOSH REL (ceiling) (ppm) | 50 ppm |
| sodium 2-ethylhexanoate (19766-89-3) | | |
| Not applicable | | |

8.2. Exposure controls

Appropriate engineering controls : Avoid creating mist or spray. Avoid splashing. Either local exhaust or general room ventilation is usually required. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Wear suitable gloves. Impermeable protective nitrile gloves.

Eye protection : Chemical goggles or safety glasses.

Skin and body protection : Wear suitable protective clothing. Impervious clothing.

Respiratory protection : In case of inadequate ventilation wear respiratory protection. Use an approved respirator equipped with oil/mist cartridges.

Environmental exposure controls : Prevent leakage or spillage. Prevent contaminated water run-off.

Consumer exposure controls : Avoid contact during pregnancy/while nursing.

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

Reliant HD™ Extended Life (Red) 50/50 AFC, Reliant HD™ Extended Life Antifreeze/Coolant - Concentrate

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|---------------------|
| Physical state | : Liquid |
| Appearance | : Free & clear. |
| Colour | : red |
| Odour | : No data available |
| Odour threshold | : No data available |
| pH | : 8.2 - 8.8 (50/50) |
| Melting point | : No data available |
| Freezing point | : -19 °C |
| Boiling point | : 158 °C |
| Flash point | : 116 °C |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Flammability (solid, gas) | : No data available |
| Explosive limits | : No data available |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Vapour pressure | : No data available |
| Relative density | : 1.12 |
| Relative vapour density at 20 °C | : No data available |
| Density | : 9.364 @ 15.6 °C |
| Solubility | : No data available |
| Log Pow | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

Stable at ambient temperature and under normal conditions of use.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Avoid excessive heat or cold. Keep away from sources of ignition.

10.5. Incompatible materials

Strong acids. Strong bases. Strong oxidizers.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| | |
|---------------------------|------------------------------------|
| Likely routes of exposure | : Skin and eye contact; Inhalation |
| Acute toxicity | : Oral: Harmful if swallowed. |

Reliant HD™ Extended Life (Red) 50/50 AFC, Reliant HD™ Extended Life Antifreeze/Coolant - Concentrate

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| Reliant HD™ Extended Life (Red) 50/50 AFC, Reliant HD™ Extended Life Antifreeze/Coolant - Concentrate | |
|---|---------------------------------|
| ATE US (oral) | 530.2204351103 mg/kg bodyweight |
| Ethylene glycol (107-21-1) | |
| LD50 oral rat | 500 mg/kg |
| LD50 dermal rat | > 3500 mg/kg mouse |
| LC50 inhalation rat (mg/l) | > 2.5 mg/l/4h |
| ATE US (oral) | 500 mg/kg bodyweight |

Skin corrosion/irritation : Not classified
 Serious eye damage/irritation : Not classified
 Respiratory or skin sensitisation : Not classified
 Germ cell mutagenicity : Not classified
 Carcinogenicity : Not classified

Reproductive toxicity : Suspected of damaging fertility or the unborn child.
 Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : May cause damage to organs through prolonged or repeated exposure.

| Ethylene glycol (107-21-1) | |
|----------------------------|---------------------------------|
| LOAEL (oral, rat, 90 days) | 1000 mg/kg bodyweight/day |
| NOAEL (oral, rat, 90 days) | 150 mg/kg bodyweight/day kidney |

Aspiration hazard : Not classified
 Symptoms/effects after inhalation : In high concentrations : Inhalation may cause: irritation, coughing, shortness of breath.
 Symptoms/effects after skin contact : May cause slight irritation.
 Symptoms/effects after eye contact : May cause slight irritation.
 Symptoms/effects after ingestion : Swallowing a small quantity of this material will result in serious health hazard. Harmful if swallowed.

SECTION 12: Ecological information

12.1. Toxicity

| Ethylene glycol (107-21-1) | |
|--------------------------------------|--------------------------------|
| LC50 fish 1 | 72860 mg/l Pimephales promelas |
| EC50 Daphnia 1 | > 100 mg/l |
| NOEC chronic fish | 15380 mg/l Pimephales promelas |
| NOEC chronic crustacea | 8590 mg/l Ceriodaphnia sp. |
| sodium 2-ethylhexanoate (19766-89-3) | |
| LC50 fish 1 | > 100 mg/l 96 h |

12.2. Persistence and degradability

| Reliant HD™ Extended Life (Red) 50/50 AFC, Reliant HD™ Extended Life Antifreeze/Coolant - Concentrate | |
|---|---|
| Persistence and degradability | Large quantities. May cause long-term adverse effects in the environment. |
| Ethylene glycol (107-21-1) | |
| Persistence and degradability | Readily biodegradable. |
| Biodegradation | > 60 % 28 d |

12.3. Bioaccumulative potential

| Reliant HD™ Extended Life (Red) 50/50 AFC, Reliant HD™ Extended Life Antifreeze/Coolant - Concentrate | |
|---|--------------------------------|
| Bioaccumulative potential | Not established. |
| Ethylene glycol (107-21-1) | |
| Log Pow | - 1.36 |
| Bioaccumulative potential | Not expected to bioaccumulate. |
| sodium 2-ethylhexanoate (19766-89-3) | |
| Log Pow | 1.3 |

Reliant HD™ Extended Life (Red) 50/50 AFC, Reliant HD™ Extended Life Antifreeze/Coolant - Concentrate

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

12.4. Mobility in soil

| Reliant HD™ Extended Life (Red) 50/50 AFC, Reliant HD™ Extended Life Antifreeze/Coolant - Concentrate | |
|---|------------------|
| Ecology - soil | Not established. |

12.5. Other adverse effects

Other information : No additional information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations : Do not dispose of waste into sewer.
Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description : RQ, UN3082 Environmentally hazardous substances, liquid, n.o.s., 9, III

UN-No.(DOT) : UN3082
Proper Shipping Name (DOT) : Environmentally hazardous substances, liquid, n.o.s.
Transport hazard class(es) (DOT) : 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140
Packing group (DOT) : III - Minor Danger
Hazard labels (DOT) : 9 - Class 9 (Miscellaneous dangerous materials)



DOT Symbols : G - Identifies PSN requiring a technical name
Other information : Bulk: RQ >= 5359, 10141, 8481 lbs; Packaged Goods: Not DOT hazardous.

Transport by sea

Not regulated.

Air transport

Not regulated.

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

| | | |
|-----------------|------------------|----------|
| Ethylene glycol | CAS-No. 107-21-1 | 45 - 95% |
|-----------------|------------------|----------|

| Ethylene glycol (107-21-1) | |
|---------------------------------------|--|
| EPA TSCA Regulatory Flag | T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA. |
| CERCLA RQ | 5000 lb |
| SARA Section 313 - Emission Reporting | >95% |

15.2. International regulations

CANADA

| Ethylene glycol (107-21-1) | |
|--|--|
| Listed on the Canadian DSL (Domestic Substances List) inventory. | |

| sodium 2-ethylhexanoate (19766-89-3) | |
|--|--|
| Listed on the Canadian DSL (Domestic Substances List) inventory. | |

Reliant HD™ Extended Life (Red) 50/50 AFC, Reliant HD™ Extended Life Antifreeze/Coolant - Concentrate

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

EU-Regulations

Ethylene glycol (107-21-1)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

sodium 2-ethylhexanoate (19766-89-3)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

Ethylene glycol (107-21-1)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on Taiwan National Chemical Inventory
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on KECI (Korean Existing Chemicals Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

sodium 2-ethylhexanoate (19766-89-3)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on KECI (Korean Existing Chemicals Inventory)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on Taiwan National Chemical Inventory
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Not listed on the AICS (Australian Inventory of Chemical Substances)

15.3. US State regulations

California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer, developmental and/or reproductive harm

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. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

| | |
|-------------------|---|
| Revision date | : 09/27/2017 |
| Data sources | : ESIS (European chemical Substances Information System; accessed at: http://esis.jrc.ec.europa.eu/index.php?PGM=cla . European Chemicals Agency (ECHA) Registered Substances list. Accessed at http://echa.europa.eu/ . Kristen Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition. National Fire Protection Association. Fire Protection Guide to Hazardous Materials; 10th edition. OSHA 29CFR 1910.1200 Hazard Communication Standard. TSCA Chemical Substance Inventory. Accessed at http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html . United Nations Economic Commission for Europe: About the GHS. Accessed at http://www.unece.org/trans/danger/publi/ghs/ghs_welcome_e.html . |
| Other information | : None. |

Reliant HD™ Extended Life (Red) 50/50 AFC, Reliant HD™ Extended Life Antifreeze/Coolant - Concentrate

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

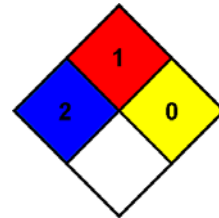
Full text of H-statements:

| | |
|------|--|
| H302 | Harmful if swallowed. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H361 | Suspected of damaging fertility or the unborn child. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |

Abbreviations and acronyms:

| | |
|--|---|
| | ACGIH (American Conference of Government Industrial Hygienists) |
| | ATE: Acute Toxicity Estimate |
| | CAS (Chemical Abstracts Service) number |
| | CLP: Classification, Labelling, Packaging. |
| | LD50: Lethal Dose for 50% of the test population |
| | EC50: Environmental Concentration associated with a response by 50% of the test population. |
| | GHS: Globally Harmonized System (of Classification and Labeling of Chemicals) |
| | OSHA: Occupational Safety & Health Administration |
| | TSCA: Toxic Substances Control Act |
| | STEL: Short Term Exposure Limits |
| | TWA: Time Weighted Average |

- NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.
- NFPA fire hazard : 1 - Materials that must be preheated before ignition can occur.
- NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and not reactive with water.



Indication of changes:

Composition/information on ingredients. Added. Product.

SDS prepared by: The Redstone Group, LLC.
6077 Frantz Rd
Suite 206
Dublin, Ohio USA 43016
614.923.7472
www.redstonegrp.com

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product