# BLUE SKY HD OAT ELC RED PREDILUTED ANTIFREEZE & COOLANT

Safety Data Sheet

Version: 1.1 | Revision Date: 6/16/2026 | Print Date: 6/16/2026

## ection 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 Product Identifier

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|---|---|
| Product Form: | Chemical Mixture |
| Trade Name: | BLUE SKY® HD OAT ELC RED Prediluted Antifreeze and Coolant |
| SDS ID: | 74485 |

### 1.2 Identified Uses and Restrictions

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| Use of the substance/mixture: | Automotive and industrial engine cooling system antifreeze and coolant |
| Recommended Restrictions: | Use strictly in accordance with vehicle manufacturer specifications. Do not mix unapproved formulations. |

### 1.3 Supplier Details

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|---|---|
| Company Name: | BLUE SKY East LLC |
| Address: | 800 Roosevelt Avenue, Carteret, NJ 07008 |
| Contact Line: | 855-BluSkyDEF (855-258-7593), 1 732-969-9200 |
| Official Website: | https://blueskydefna.com/ |

### 1.4 Emergency Contact Systems

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|---|---|
| 24-Hour Emergency Dispatch: | 855-BluSkyDEF (855-258-7593) or 1-732-969-9200 |
| Technical Representative / Responsible Party: | Dru Soni \| SDS@blueskydefna.com |
| Chemical Spill/Leak Emergency (ERS Service) | Domestic North America: 800-255-3924 |

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

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|---|---|
| GHS-US classification: | Reproductive Toxicity Category 2<br>Acute Toxicity (Oral) Category 4 |
| Target Organ Toxicity: | Specific Target Organ Toxicity following Repeated Exposure (Oral) Category 2 |

### 2.2 Label elements

Hazard pictograms (GHS-US):



Exclamation Mark (GHS07)



Health Hazard (GHS08)

| | |
|---|---|
| Signal word (GHS-US): | Warning |
| Hazard statements (GHS-US) | H302: Harmful if swallowed.<br>H373: May cause damage to organs (kidneys) through prolonged or repeated exposure if swallowed.<br>H361: Suspected of damaging fertility or the unborn child. |

### 2.3 Precautionary Statements

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| Precautionary statements (GHS-US) - Prevention: | Obtain special instructions before use.<br>Do not handle until all safety precautions have been read and understood. (P202).<br>Avoid the inhalation of generated mists, vapors, or spray patterns.<br>Wash all exposed skin surfaces meticulously following handling.<br>Restrict eating, drinking, or smoking in operational chemical zones.<br>Implement personal protective gear as specified in the handling protocols. |

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| Precautionary statements (GHS-US) - Response: | Ingestion: If swallowed, contact a regional emergency medical facility, poison control expert, or physician immediately. Rinse oral cavities thoroughly. Do NOT prompt or induce vomiting.<br>Inhalation: If breathing becomes labored, relocate the affected individual to fresh air and support a posture that facilitates easy respiration.<br>Exposure: If direct exposure is verified or suspected, acquire immediate clinical evaluation or advice. |
| Storage and Disposal: | Keep stored contents secured and locked down safely. Consign residual chemical contents and empty packaging to an authorized hazardous waste processing entity in strict alignment with regional, national, state, and local ordinances. |

## 2.4 Other hazards which do not result in classification

None noted under standard criteria.

# SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

## 3.1 Substances

Not applicable as this represents a distinct mixture.

## 3.2 Mixtures

| Ingredient Name | Chemical Abstract Services (CAS) | Proportion (percent by Wt) | GHS-US Operational Classification |
|---|---|---|---|
| **Ethylene Glycol (Base Agent):** | CAS: 107-21-1 | 45 percent to 55 percent | Acute Tox. 4 (Oral), H302 |
| **Water (Diluent/Solvent):** | CAS: 7732-18-5 | 45 percent to 55 percent | Not classified |
| **Diethylene Glycol (Co-Solute):** | CAS: 111-46-6 | Less than 3% | • Acute Tox. 4 (Oral), H302<br>• STOT RE 2, H373 |
| **Potassium p-tert-butylbenzoate (Corrosion Inhibitor):** | CAS: 16518-26-6 | Less than 2% | Repr. 2, H361 |
| **Denatonium Benzoate (Bittering Agent):** | CAS: 3734-33-6 | 0.003 percent to 0.005 percent | • Acute Tox. 4 (Oral), H302<br>• Skin Irrit. 2, H315<br>• Eye Irrit. 2A, H319<br>• STOT SE 3, H335 |

# SECTION 4: FIRST AID MEASURES

## 4.1 First Aid Actions

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| General Assessment: | Ensure medical personnel are fully apprised of the technical materials involved. Never introduce oral liquids or therapies to an individual who is semi-conscious or entirely unresponsive. |
| Inhalation Exposure: | Transport the subject to an unpolluted outdoor space. If respiratory actions cease entirely, administer controlled artificial respiration. Seek prompt clinical guidance if discomfort persists. |
| Dermal Contact: | Flush the contaminated skin zone immediately with large quantities of clean water. Strip off compromised or soaked clothing items. Clean clothes thoroughly before reusing. If skin irritation manifests or continues, secure immediate clinical oversight |

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| Ocular Contact: | Expel contact lenses when applicable and structurally uncomplicated to perform. Flush eyes continuously for a minimum threshold of fifteen minutes utilizing gentle, clean water streams while actively holding both upper and lower eyelids open. If eye irritation lingers, obtain professional ophthalmic care. |
| Ingestion Action: | Contact a poison management center or healthcare professional urgently. Rinse the oral cavity cleanly. If the individual exhibits full cognitive awareness, administer two full glasses of water. Do NOT prompt vomiting unless explicitly instructed by authorized clinical personnel. |

### 4.2 Acute and Delayed Symptoms

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| Systemic Impact: | Causes damage to organs (kidneys) Oral. Suspected of damaging fertility or the unborn child |
| Dermal Contact: | May lead to moderate localized irritation. |
| Ocular Contact: | Immediate contact can cause direct eye irritation. |
| Ingestion Danger: | Ingesting even minimal doses represents a critical physiological threat. The human lethal threshold median is estimated at approximately one hundred milliliters (equivalent to three fluid ounces). |

### 4.3 Immediate Medical Interventions

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| Clinical Guidance: | For attending physicians, the implementation of intravenous 4-methylpyrazole (fomepizole) acts as a highly specialized antidote. This molecule serves as an inhibitor of alcohol dehydrogenases, successfully preventing the synthesis of toxic, destructive metabolites originating from ethylene glycol breakdown. Timely administration can reduce severe metabolic disruptions before the onset of metabolic acidosis, comatose states, seizures, or irreversible renal collapse. |

## SECTION 5: FIREFIGHTING MEASURES

### 5.1 Extinguishing Media

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| Approved Agents: | Alcohol-resistant foam, water fog, fine water spray patterns, dry chemical powders, carbon dioxide, or clean sand. |
| Prohibited Methods: | Avoid applying solid, high-pressure water streams, as this practice can fragment and spread burning material. |

### 5.2 Specific Substance Hazards

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| Thermal Decomposition: | Under intense fire conditions, generated smoke will contain the fundamental compound alongside various toxic or highly irritating breakdown products. Thermal degradation can release carbon monoxide and carbon dioxide. The mixture itself does not present an immediate flash hazard but will burn when subjected to prolonged high-temperature environments. |

### 5.3 Firefighter Protocols

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| Operational Tactics: | Deploy water spray or fog streams to cool down adjacent or threatened storage vessels. Exercise profound safety precautions during chemical fires. Prevent any deployed fire control water runoff from entering public water systems, storm sewers, or topsoil environments. |
| Personal Protective Gear: | Do not engage the fire perimeter without full chemical-resistant turnout gear and an independent, positive-pressure self-contained breathing apparatus (SCBA). |

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1 Personal Protection & Emergency Operations

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| For Non-Emergency Personnel: | Immediately isolate the risk area and clear out unauthorized or non-essential personnel. |
| For Emergency Responders: | Outfit cleanup crews with specialized personal protective gear as detailed in Section 8.2. Ensure adequate ventilation across the spill zone. |

### 6.2 Environmental Containment

Prevent the fluid from migrating into municipal sewage grids, drainage ditches, surface waterways, or groundwater zones. Contact environmental regulatory authorities if the product compromises public ecological zones.

### 6.3 Recovery and Clean-Up

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| Spill Mitigation: | Absorb the liquid utilizing inert, solid mineral binding materials (such as volcanic clay or diatomaceous earth) as rapidly as possible. Gather the contaminated solids into approved, sealed disposal vessels. For minor spills, contain with non-combustible absorbent sheets and transfer mechanically into secure containers. Isolate waste materials cleanly away from incompatible chemical stocks. |

## SECTION 7: HANDLING AND STORAGE

### 7.1 Safe Handling Practices

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| Operational Measures: | Ensure thorough washing of hands and exposed skin areas utilizing mild soap and clean water prior to eating, drinking, or smoking. Implement continuous exhaust ventilation within processing areas to avoid the stagnation of localized vapors. Prevent chemical contact with eyes or skin. |
| Hygiene Controls: | Refrain from consuming food items or using tobacco products within chemical zones. Wash protective garments thoroughly post-handling. |

### 7.2 Storage Requirements

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| Safe Storage Configurations: | Keep contained exclusively within the original manufacturer packaging. Store in a chilled, thoroughly ventilated environment kept away from direct sunlight exposure and high-intensity heat sources. Keep storage caps locked airtight when not in service. |
| Thermal Limits: | Products may drop into a solid physical state at environmental temperatures descending below -18°C (0°F). |
| Prohibitions: | Do not store alongside consumer food stocks, animal feed, medications, or municipal drinking water reservoirs. Never subject empty or filled containers to cutting, drilling, welding, or open flame treatments. Keep isolated from strong acids, basic solutions, and powerful oxidizing agents. |

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control parameters

| Ethylene Glycol (CAS: 107-21-1): | |
|---|---|
| ACGIH TWA (Vapor Fraction): | 25 ppm |
| ACGIH STEL (Vapor Fraction): | 50 ppm |
| ACGIH STEL (Inhalable Fraction / Aerosol Only): | 10 mg/m³ |
| Critical Notation: | Identified as an upper respiratory tract and ocular irritant. |
| Diethylene Glycol (CAS: 111-46-6): | No official ACGIH exposure metrics established. |
| Denatonium Benzoate (CAS: 3734-33-6): | No official ACGIH exposure metrics established. |
| Potassium p-tert-butylbenzoate (16518-26-6): | No official ACGIH exposure metrics established. |

### 8.2 Engineering Controls

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|---|---|
| Mechanical Systems: | Deploy localized mechanical ventilation to prevent airborne concentrations from exceeding defined thresholds. Maintain functional eyewash infrastructure and decontamination showers near hazardous workstations. |

### 8.3 Individual protection measures, such as personal protective equipment

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|---|---|
| General PPE Standard: | Minimize unnecessary direct exposure to all chemical mixtures. |
| Hand Protection: | Wear sturdy chemical-resistant gloves (such as neoprene, nitrile, or butyl rubber configurations). |
| Ocular Protection: | Use chemical splash goggles or integrated safety glasses with wrap-around side shields. |
| Respiratory Protection: | Not required during normal operational routines. If processing activities generate vapors or mists exceeding exposure limits, deploy an approved air-purifying respiratory device. |



## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Fundamental Chemical Metrics

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|---|---|
| Physical State: | Liquid |
| Coloration: | Red |
| Odor Profile: | Mild |
| Odor Threshold | No data available |
| Molecular Mass (Base Agent) | Not Applicable (Chemical Mixture) |
| pH Range (50% Volume Solution) | 8.6 |
| Relative Evaporation Rate (Butyl Acetate = 1) | Nil |
| Freezing Point Threshold: | -36°C (-34°F) |
| Boiling Point Threshold: | 108°C (226°F) |
| Flash Point (Concentrate Base): | None |
| Auto-Ignition Temperature (Concentrate Base): | 400°C (752°F) [100% Ethylene Glycol] Literature |
| Decomposition Temperature | No data available |
| Flammability (Solid, Gas) | No data available |
| Vapor Pressure Metric: | Less than 0.1 mm Hg @ 20°C |
| Relative Vapor Density @ 20°C | No data available |
| Specific Gravity: | 1.07 to 1.09 |
| Density Metric: | 1.07 to 1.09 kg/l (8.92 to 9.09 lbs./gal) |
| Solubility: | Fully miscible and complete within water mediums |
| Log Pow | No data available |
| Log Kow | No data available |
| Viscosity, Kinematic | No data available |
| Viscosity, Dynamic | No data available |
| Explosive Limits | 3.2 percent to 15.3 percent by volume |
| Explosive Properties | No data available |
| Oxidizing Properties | No data available |
| Volatile Organic Compound (VOC) Percentage | 0 percent |

## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Chemical Reactivity

No hazardous reactions manifest when handled under standard operational profiles.

### 10.2 Structural Stability

Chemically stable under standard ambient temperature and storage parameters.

### 10.3 Hazardous Polymerization

Will not undergo hazardous polymerization or dangerous secondary reactions

### 10.4 Environments to Avoid

Exposure to extreme thermal peaks, open flame paths, sparks, or localized ignition arrays.

## 10.5 Incompatible Materials

Keep isolated from robust chemical acids, concentrated bases, and active oxidizing chemicals

## 10.6 Hazardous Decomposition Yields

Thermal breakdowns can generate carbon monoxide, carbon dioxide, volatile aldehydes, ethers, alcohols, and irritating fumes.

# SECTION 11: TOXICOLOGICAL INFORMATION

## 11.1 Acute Toxicity Data

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|---|---|
| | Ethylene Glycol (107-21-1): |
| Oral LD50 (Rat): | 7712 mg/kg bodyweight |
| Inhalation LC50 (Rat): | Greater than 2.5 mg/l over a 6-hour exposure window (Aerosol format) |
| Human Acute Oral ATE: | 500 mg/kg bodyweight |
| | Diethylene Glycol (111-46-6): |
| Oral LD50 (Rat): | 19600 mg/kg bodyweight |
| Dermal LD50 (Rabbit): | 11890 mg/kg bodyweight |
| Acute Oral ATE: | 500 mg/kg bodyweight |

## 11.2 Primary Irritation and Target Organs

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|---|---|
| Skin Classification: | Not officially categorized as a primary dermal corrosive or irritant. |
| Ocular Classification: | Not officially categorized as a primary eye hazard, though contact may prompt temporary irritation. |
| Mutagenicity & Carcinogenicity: | No components present at thresholds greater than or equal to 0.1 percent are identified as potential mutagens or carcinogens by IARC, ACGIH, NTP, or OSHA. |
| Reproductive Toxicity: | Suspected of damaging fertility or the unborn child. |
| Specific Target Organ Toxicity (Repeated Exposure): | May generate explicit damage to internal organ frameworks (specifically the kidneys) through extended or repeated oral ingestion pathways. |

# SECTION 12: ECOLOGICAL INFORMATION

## 12.1 Ecotoxicity Data

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|---|---|
| | Ethylene Glycol (107-21-1): |
| LC50 Fish 1: | 40,761 mg/l over 96 hours (Static evaluation via Salmo gairdneri) |
| EC50 Daphnia 1: | Greater than 10,000 mg/l over a 24-hour window. |
| | Diethylene Glycol (111-46-6): |
| L C50 Fish 1: | 75,200 mg/l over 96 hours (Flow-through evaluation via Pimephales promelas) |

## 12.2 Environmental Degradation

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|---|---|
| Ethylene Glycol: | Highly biodegradable within water systems and break down rapidly across topsoil matrixes. |
| Diethylene Glycol: | Fully biodegradable across standard aquatic and soil ecosystems. |

## 12.3 Bioaccumulative Potential

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|---|---|
| Ethylene Glycol: | Bioconcentration Factor (BCF) is documented at 10.0 over 72 hours (Leuciscus idus). Log Pow stands at minus 1.34. This indicates a very low potential for bioaccumulation. |
| Diethylene Glycol: | Log Pow is documented at minus 1.98, displaying non-bioaccumulative traits |

### 12.4 Soil Mobility

Highly mobile within soil layers due to complete water miscibility characteristics.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste Disposal Guidelines

| | |
|---|---|
| Waste Disposal Recommendations: | Dispose of contents and containers in an authorized waste collection point in full compliance with local, regional, national, and international regulations. Avoid release to the environment. Do not dispose of waste into sewer systems, storm drains, or natural waterways. |
| Empty Package Handling: | Empty containers retain product residue (liquid and vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. Empty drums should be completely drained, properly bunged, and promptly returned to a drum reconditioner or properly disposed of. |

## SECTION 14: TRANSPORT INFORMATION

### 14.1 Department of Transportation (DOT) Profile

| Bulk Containers (Meeting or exceeding 10,000 lbs. / 1,120 Gallons): | |
|---|---|
| UN Number (DOT): | UN3082 |
| Proper Shipping Name: | Environmentally hazardous substances, liquid, n.o.s. (Contains Ethylene Glycol) |
| Hazard Class: | Class 9 (Miscellaneous Hazardous Materials) |
| Packing Group: | Packing Group III |
| Reportable Quantity (RQ): | 5,000 lbs. (Ethylene Glycol) |
| Non-Bulk Packages (Standard Drums, Totes, Jugs under 10,000 lbs. / 1,120 Gallons): | |
| Regulatory Status: | Not regulated as a dangerous good or hazardous material for domestic transit. |

### 14.2 International Transit Rules

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|---|---|
| IMDG (Ocean Freight): | Not regulated as a dangerous good for international maritime shipping |
| IATA (Air Freight): | Not regulated as a dangerous good for international air cargo shipping. |
| Proper Shipping Name (DOT): | Not regulated in individual containers below the reportable quantity threshold. For bulk packages exceeding the reportable quantity threshold: Environmentally hazardous substances, liquid, n.o.s. (Ethylene Glycol) |

### 14.3 Transport hazard class(es)

| | |
|---|---|
| Department of Transportation (DOT) Hazard Classes: | Not regulated in individual containers below the reportable quantity threshold. For bulk packages exceeding the reportable quantity threshold: Class 9 - Miscellaneous hazardous material 49 CFR 173.140 |

### 14.4 Packing group

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|---|---|
| Packing Group (DOT): | Not regulated in individual containers below the reportable quantity threshold. For bulk packages exceeding the reportable quantity threshold: PG III |

### 14.5 Environmental hazards

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|---|---|
| Other Information: | Ethylene Glycol maintains an environmental Reportable Quantity (RQ) threshold of 5,000 lbs. Because this prediluted blend carries a reduced active chemical mass, individual package vessels containing a total product weight equal to or exceeding 10,000 lbs. (equivalent to approximately 1,120 gallons or greater in a single container) are regulated as a DOT Hazardous Substance and must display UN3082 Class 9 placards. Shipments in standard drums, totes, or jugs below this volume boundary are exempt from domestic transit regulations. |

## SECTION 15: REGULATORY INFORMATION

### 15.1 United States Federal Rules

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|---|---|
| Toxic Substances Control Act (TSCA) Inventory Status: | All chemical elements and component ingredients contained within this mixture are actively listed or are explicitly exempted on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory core registry. |
| SARA Section 313 Emissions Reporting: | This mixture contains Ethylene Glycol (CAS Number: 107-21-1), which is subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and Title 40 of the Code of Federal Regulations, Part 372. |

### 15.2 International Regulations

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|---|---|
| Canada: | This SDS has been prepared according to the criteria of the Hazardous Products Regulations (HPR) (WHMIS 2015). Potassium p-tert-butylbenzoate (16518-26-6) is listed on the Canadian NDSL (Non-Domestic Substances List). |

### 15.3 State Specific Rules

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|---|---|
| California Proposition 65: | This formulation contains Ethylene Glycol, a chemical known to the State of California to cause birth defects or alternative reproductive developmental harm. For more information go to www.P65Warnings.ca.gov. |

## SECTION 16: OTHER INFORMATION

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|---|---|
| Template Revision Effective Date: | June 05, 2026 |

NFPA Hazard Rating Profile:

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|---|---|
| Health Hazard: | Level 1 (Materials that can prompt distinct irritation under emergency exposure). |
| Fire Hazard: | Level 1 (Materials requiring distinct pre-heating environments to ignite). |
| Reactivity Hazard: | Level 0 (Compounds that remain completely structurally stable under standard fire environments). |




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